

# BERKSHIRE COMBINED SANITARY DISTRICTS.

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## REPORT

TO THE RURAL AND URBAN AUTHORITIES

OF THE

COMBINED SANITARY DISTRICTS OF

BERKSHIRE,

FOR THE YEAR ENDING DECEMBER 31st, 1884.

BY

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# THE HISTORY OF

THE UNITED STATES OF AMERICA

FROM 1776 TO 1876

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## NEWBURY RURAL SANITARY DISTRICT.

Inspector of Nuisances, the late Mr. George Marshall.

THE sudden and unexpected decease of the late Mr. George Marshall, the sanitary inspector of this district, which occurred just at the close of the year 1884, has made it necessary for me to prepare from his papers the usual return of the twelve-months' inspectorial work in his stead, and I cannot but take this opportunity of expressing my appreciation of his unwearying, intelligent, and conscientious exertions for the sanitary welfare of the district during the 10 years of his official career, and my strong sense of the loss both to it and to myself occasioned by his untimely death.

During the year nearly the entire district was twice systematically gone over, and nearly 1,500 premises were inspected, on 300 of which ordinary nuisances of various kinds were discovered, all of which were remedied. The details of this work will be found in the "Inspectors' Returns," Table III, and as they were for the most part of a routine character it will suffice to refer specially only to those which were connected with attacks of illness attributed to insanitary conditions which thus came under notice.

Although there was not any serious outbreak of disease during the year, isolated attacks, or small groups of cases of various zymotic complaints were reported from time to time, and, as is generally the case in this district, scarlet fever and diphtheria were the most frequent. In every instance the most sedulous and continuous watchfulness was shown by Mr. Marshall, so as to ensure the carrying out of my instructions as to the strictest practicable isolation and the regular disinfection of all infected

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persons and things, with the result that in nearly every case infection was limited to the single household first attacked; and it is satisfactory to be able to report that the health of the district was throughout the year above the average, and that the total mortality was the lowest recorded since the Public Health Act came into operation.

Five samples of water were analysed by me on account of zymotic illness believed to be due to their consumption. Two of the number proved to be decidedly good, and one was of fair quality; the other two were much polluted, enteric fever and blood poisoning being respectively the illnesses occurring in connection with their use.

The returns of pauper sickness for the year include only 72 cases, the total of the zymotic diseases being one family of six persons down with scarlet fever, three diphtheric attacks, and two of diarrhoea.

Between April and December scarlet fever was reported seven times, each of the first four attacks being at considerable intervals and in widely separated localities; no connection could be traced between them, and the general sanitary conditions of the premises were satisfactory. The last three occurred in Thatcham at intervals of a month and towards the close of the year, but as the nature of the illness was not recognized in the first child attacked—the case being very mild and medical advice not obtained—it is probable that the infection spread before any sanitary precautions were enforced. There was only a single death from the complaint during the year.

Diphtheria proved more fatal, causing four deaths; but there were a few other attacks reported at considerable intervals of time and place, and in none of them did the complaint spread in the neighbourhood. In one instance where several members of the family suffered more or less, the water supply—which was from a deep well in the chalk—was suspected, but on analysis it proved to be good, and the faulty condition of



the drainage (with the ventilation of the closet soil-pipe so arranged by the plumber who carried it out as to bring the foul air *into* the house instead of carrying it away) provided a much more probable explanation of the illness. Late in the autumn it was found necessary to close North Heath Schools on account of three attacks occurring in the family of the master, one of which ended fatally in two days. On examination I found but few obvious sanitary defects on the premises, which were exceedingly well kept, and although the closets and well were in somewhat dangerous proximity, the water supply proved not to be polluted, nor was there any possibility of foul air entering the house. No exposure to infection could be made out and there were not any definite diphtheritic attacks or even suspicious throat cases among the children attending the schools at the time. The disease remained confined to the master's house. I advised some improvements in the matter of the school closets, which were carried out subsequently.

Enteric fever has also made its appearance in a few isolated attacks, of which two were fatal. One of these was that of a person who came home from a distance falling ill immediately afterwards. The other was a youth of 16, living in premises the sanitary condition of which was good, and no clue could be obtained to the origin of the illness. At Three Chimney-lane, Thatcham, the complaint broke out in the cottage of a family of very dirty habits. The tenement was one of a row without any back windows or through ventilation. Earth closets were in use, but it appeared on enquiry that there had been a good deal of negligence in their management, and that the smell from them had been complained of in the sleeping room occupied by the first patient. I also found on analysis that the well water was gravely fouled, probably by soakage from the slop channel which ran very near to it. After the removal of the sick persons to the Union House fever wards the well was thoroughly secured against any further soakage and cleaned out, the closets were also taken down and re-erected at a distance

from the cottages. The complaint was confined to the one family first attacked, although in a second there was illness of a suspicious though indefinite character. This row of cottages lies at a little distance from the sewered part of the village, there was therefore no risk of infection spreading by means of the sewers. I may add that throughout the year these have been kept in excellent order, the flushing being regularly and very efficiently carried out under Mr. Marshall's superintendence, and when examined by me I have found them free both from deposit and smell.

The births registered during the year were 316 in number, M. 177, F. 139, being at the rate of 28·1 per 1,000 of the estimated population; an increase of 2·4 per 1,000 on that of 1883—but still, as then, nearly three per 1,000 below the average birth rate for the combined sanitary districts, and in fact the lowest of them all.

The “registered” deaths numbered 159, but including 12 of previous residents in the district who died in the Union House (within the Borough) the “corrected” number is 171—M. 93, F. 78, which gives a death rate of 15·2 per 1,000, see Tables I and V—the lowest yet reached since the sanitary combination was formed; and not only satisfactory in itself but especially as evidencing the good results of the work which has been carried out since 1873.

Zymotic diseases account for 15 deaths—all but two being from infantile complaints, and under six years of age—see Table IV B. Small pox (which has not appeared in the district all the year) and measles are absent from the list. The rate for this class was the low one of 1·3 per 1,000, and practically the same as in 1883.

Phthisis (consumption) occasioned only 13 deaths, being nine fewer than in 1883. Ten of this number were between the ages of 20 and 25, the death rate being 1·1 per 1,000, and less than half the rate (2·7) for the wasting and convulsive diseases of children under five years of age, to which 31 deaths were due.

Lung inflammations (29 deaths) accounted, as in 1883, for nearly 17 % of the entire mortality—the rate being 2·6 per 1·000. Nearly the whole of this was from the chronic bronchitis of the aged or attacks occurring amongst infants (often connected with teething) and young children under five; acute lung inflammations between the ages of five and fifty accounting for only one death during the year.

On reference to Table VI it will be seen that the percentage of total mortality due to “zymotics” was under 9 %, these diseases being the class most controllable by sanitary improvements.

Consumption, for the most part the scourge of youth and early middle life, which in this district accounts for under 8 % of the whole deaths, is also in no small degree reduced in frequency by a dry subsoil and pure air. As regards the mortality from infantile wasting and convulsive diseases, both the death rate and the percentage of total deaths are considerably higher than in 1883 and than the average of the combination for the year under review. This may partly be accounted for by the fact that nearly half the deaths registered as being under one year were those either of children born prematurely or stillborn, or of those of such feeble vitality as to survive only a few weeks. At the same time the rates of mortality in this class are usually high in the district, and they are probably due in no small degree to improper feeding and general management. Taking into consideration the low birth rate the percentage ratio of deaths at all ages to births (54·1) is however satisfactory, and (although it is a little higher than the average of the combined areas, see Table V) shows that there would be a fairly high rate of natural increase in the population of the district were it not for the amount of migration from it as the children grow up.

As compared with 1883, the deaths under one and five years show a little increase, which, coupled with the considerable decrease in those above 25 years, raises the ratio of the deaths



under five years to 31·6 % of the whole mortality, which is 5 % above that of the preceding year.

Ten inquests were held during the twelvemonth. In three cases death was found to be due to "natural causes" and in six to accidents of various kinds.

## NEWBURY URBAN SANITARY DISTRICT.

Inspector of Nuisances, Mr. Benjamin Sargent.

IN this district the sanitary history of the past year has been uneventful, and, with the exception of the special inspections made and the precautions taken in view of the possible introduction of Asiatic cholera into the country, the work of dealing with nuisances and zymotic attacks has been of a routine and every day character.

The inspector's returns (Table III) show 875 premises visited in the ordinary course and 520 specially inspected; nearly 150 nuisances were detected in the first series and rather over 100 in the second—these last being mainly accumulations of refuse in courts and alleys, &c., all of which were got rid of, and their renewal guarded against by extra attention to the matter of scavenging. About 500 yards of 9-in. pipe sewers have been laid in localities where they can be ultimately utilized as part of the new sewerage system; and the works for the prevention of floods in the district, which were only partially completed in 1883, have now been finished and will render essential service in times of heavy and continued rainfall.

Only one sample of water was submitted to me for analysis; this however proved to be very polluted and the well was closed—a fresh supply being obtained from the Water Company, from whose works 35 new services have been laid on during the year.

As regards the new sewerage works, difficulties have arisen which rendered necessary a fresh enquiry by Mr. Harrison of the Local Government Board relative to that portion of them



which would be outside the borough. The experience of the fever outbreak of 1883 is sufficient evidence of the extreme importance of carrying out these works with as little delay as possible, as I feel convinced that, should any more serious visitation occur, the existing sewers and house drains cannot be relied on to safeguard the premises connected with them from the entrance of infected sewer air, or the danger of sewage-fouled drinking water.

The unsatisfactory state of some of the ditches in the outlying parts of the district has been temporarily improved by having them cleaned out, but as they receive a good deal of foul water they cannot be effectually dealt with till the carrying out of the sewage scheme renders it practicable to cut off all communications with adjoining cottages.

Complaint has been made of the nuisance caused to neighbouring residents by the deposit of the town refuse and sweepings on ground adjoining the Enborne-road. The question of the provision of an apparatus for burning such refuse was considered by the Authority on the recommendation of the sanitary inspector and myself, but no action was taken in the matter, and in the meantime the nuisance has been lessened by the discontinuance to a great extent of the practice of depositing it there.

During the dry weather that prevailed so long during the summer it appeared to me advisable that extra flushing of the sewers should be systematically undertaken, and I accordingly reported to the Sanitary Committee on this point, and generally on the precautions which should be taken to put the district in the best practicable state of preparation to meet the contingency of the introduction of cholera should it arise; and instructions were given in accordance with my advice—the members of the Committee also arranging to visit the courts personally from time to time to satisfy themselves as to their condition.

Happily there was not any visitation of cholera, but what was done was unquestionably clear gain to the health of the

town, and may fairly be credited with contributing in its degree to the diminution of mortality which has characterized the year—during which fewer deaths were recorded than in any since the passing of the Public Health Act in 1883.

Serious illness of a zymotic character has also been reported but to a small extent; and, with the exception of diphtheria and croup—in the spring months and in late autumn—of which there were several attacks in the lowlying parts of the district (causing five and eight deaths respectively), there has been an exceedingly limited amount of sickness of this class.

The pauper sick returns were almost nominal, being only 34 cases in all—of which 11 were children under five; and the only zymotic attack among them was one of scarlet fever. This complaint has caused three deaths—one of which occurred before the case came to the knowledge of the sanitary officers, and while another child in the family continued its attendance at school—no sanitary precautions having been taken as to disinfection, &c. In another case proceedings were taken before the borough Bench for the same offence.

Simple continued fever was certified as the cause of the death of one child two years old; with this exception no cases of this disease or of enteric fever have come to my knowledge.

The year's births were 355 in number (Table IV and IV B) (M. 182, F. 173), and the total registered deaths 179, which, corrected for the deaths of 10 inmates of the Union House formerly living in the rural district, and of three previous residents in the borough who died in Moultsford Lunatic Asylum, gives 172 (M. 107, F. 65) as the true mortality—the relative numbers of the sexes being in unusual disproportion. The corrected rates per 1,000 of the estimated population are therefore, births 34·5—the highest for the year in the entire combination—and deaths 16·7—a decrease of almost 3·0 per 1,000 as compared with the corresponding rate in 1883—see Tables I and V.

Of the 21 deaths from the principal zymotic diseases 15, as already stated, were from diphtheria and croup; the death rate

per 1,000 for this class of complaints was 2·0, and their percentage of the mortality from all causes was 12·2 %—a distinct reduction as compared with the rates of 1883.

In connection with the frequent occurrence and the fatality of the closely allied complaints just referred, I may again point out, as I have done on previous occasions, that one very probable effect of the new sewerage works will be to greatly lessen their recurrence, as the level of the subsoil water may be expected to be materially lowered by them (as has been the case at Abingdon), with the result of rendering much drier and healthier those lowlying parts of the borough area which hitherto have usually been their special haunts.

Consumption is a disease to which the foregoing remarks apply equally; the deaths caused by it were 15 during the year, 11 of which occurred between the ages of 20 and 45, and its death rate was 1·5 per 1,000; while lung inflammations account for 19, with a rate of 1·8—more than two-thirds of which occurred in the first half year.

The mortality among children under five years of age from wasting and convulsive diseases was 31 (nearly the same as in 1883), and the rate 3·0 per 1,000, or 18 %, or if “all causes” are taken exactly one-third of the total deaths at all ages.

Fifty-nine deaths, or again about a third of the whole, were of persons above 60—while 49, or 28·5 %, were between the ages of 15 and 60. These figures, compared with the corresponding ones for the more strictly rural districts (see Table V), appear at first sight to show that residence even in small country towns exerts an influence unfavourable to longevity, but the more probable explanation of the matter is that a larger proportion of the residents in urban districts are at the working periods of life, having left their native villages as they grow up in the hope of finding better employment in the towns.

Inquests were held on eight deaths—two of which were found to be due to “natural causes,” four to “accident,” and two to “suicide.”



## HUNGERFORD RURAL SANITARY DISTRICT.

Inspector of Nuisances, Mr. Charles Snell.

THE returns of the inspector of this district show 2,870 premises visited during the year 1884—or nearly three-fourths of the inhabited houses contained in it. Nuisances of a routine character were discovered in rather less than one-tenth of them (279) nearly all of which were remedied—see Table III. About 120 of the number were caused by defective arrangements for sewage and filth disposal, 30 by foul or overcrowded cottages, 40 by pigs or other animals improperly kept, 10 were cases of bad water supply, and there were about 100 of a miscellaneous character. Of the seven samples of water sent to me for analysis, six proved unsatisfactory, two of them being decidedly bad. One new tube well was provided, another deepened, and the probable cause of fouling removed in the other cases.

No works of a general character have been taken in hand, but in Baydon an undoubted improvement has been effected by the demolition of a block of dilapidated cottages in the centre of the village and the erection of new ones of a superior class by the Baroness Burdett Coutts.

The general sanitary condition of the district during the year has been good, and of the 847 cases reported in the weekly return of pauper sickness, those of a zymotic character amounted only to 90 in all, 18 of which were attacks of whooping cough and 64 of diarrhœa of a sporadic character occurring in every month in the year and every part of the district. About a third of the persons suffering from the latter complaint were above 60 years of age, and less than half that proportion were infants or young children.

The amount of zymotic disease reported in the entire district during the year has been but small, and confined for the most part to occasional and easily controllable outbreaks of a limited character and attended with exceptionally low fatality.

Small pox appeared in Hungerford towards the close of the year, a tramp (who had good vaccination marks) falling ill with the modified form of the disease at the common lodging-house in the town a couple of days after coming there. He was removed to the ward for infectious cases at the Union House, the lodging-house was cleansed and fumigated, and the other inmates kept in quarantine and under supervision for 14 days—the house being closed to new comers during the time. As previously to his coming on to Hungerford, the man had slept two nights at lodging-houses in Newbury, these also were kept under surveillance, but no cases occurred in them, nor was there another in Hungerford till the last day of the year.

At various times a small amount of scarlet fever has been reported, and at Kintbury the school was closed temporarily to prevent its diffusion. Later in the year it was brought into Wexcombe from Marlborough; and there were cases at Ham and at Great Bedwyn. There was not any material spread, and as with measles, only one death resulted from it during the twelve months.

Diphtheria broke out early in the year at Great Bedwyn in a cottage in the lower part of the village, where the well was within a few feet of the cesspit. On analysis I found the water much polluted, and its use was abandoned; one attack proved fatal, and the school was closed for a time. In the late autumn another death resulted from this complaint at Ramsbury, and towards the end of the year there were three deaths from croup in different parts of the district.

The outbreak of enteric fever at Aldbourne—which, beginning in the autumn of 1883, was referred to in the report for that year—continued into the early part of 1884, and I reported fully to the Sanitary Authority, pointing out the great probability that there was of the succession of cases being maintained through the pollution of the well water with the contagium of the disease, which was almost inevitable from the relative positions and character of the closets and the wells. Earth closets were

partially adopted, or the cesspits reconstructed at a proper distance, of small size and water tight; the wells were cleaned out, pigsties removed, and all accumulations of refuse got rid of. This disease has proved fatal in two instances during the year. In one case—at Stangrove Hill—the closet arrangements were defective and the water supply bad, a new closet was provided in a safe position and a tube-well driven.

The births registered during the year were 536 in number—M. 248, F. 288. The deaths, corrected by the addition of five that occurred outside the district (in Reading Hospital and Moultsford Lunatic Asylum), were 329—M. 154, F. 175—see Tables I and IV B. The yearly rates per 1,000 of the estimated population were therefore births 31·0, deaths 19·0—the first being identical with and the latter 2·7 above the respective mean rates for the year of the combined sanitary districts. This excess of deaths, which is slightly above the previous year's rates, is due partly to the relatively large number of infants (27) born prematurely or dying within four weeks of birth, and also to the considerable mortality that occurred amongst the aged, nearly half (153) of the total deaths being of persons above 60. It may be interesting to note that no less than 42 of these were between 80 and 90 years of age, and nearly 60 of them between 70 and 80, while four had passed their ninetieth birthday by from one to four years. The proportionate excess of old people in the district, and the longevity prevailing amongst them, may be estimated from the fact that, taking the average of the past 10 years, 43 % of the entire mortality has occurred at ages exceeding 60, the corresponding percentage for all the districts in the sanitary combination being rather below 37 %—a difference of fully six per cent.

The deaths under one year and in early childhood (under 5) have been fewer than usual, and of the 55 included in the first category 27 were, as already explained, infants prematurely born or less than a month old, the percentage of infantile to total deaths being 17 %, and 10·4 % of the births for the year.



Only 92 deaths occurred between the ages of five and sixty, being but 28·8 % of the entire mortality. The percentage rate of deaths to births was however the apparently rather high one of 61·2 %, which is however accounted for by the number of premature births and the mortality among the aged, who in this district are in excessive proportion to the rest of the population.

I have already referred to most of the deaths from the zymotic class of diseases—they were 18 in all, being at the low rates of 1·0 per 1,000 of the population and 5·5 % of those from all causes—or but little more than half the corresponding percentage for the entire combination (see Table VI), and of these diarrhœa (four deaths of infants and young children and three among the aged) accounts for nearly four-tenths.

The mortality from phthisis was rather considerable, 33 deaths resulting from it—equal to a rate of 1·9 per 1,000 or 10 % of that from all diseases. Two-thirds of this occurred amongst persons between the ages of 20 and 50.

Fifty-two deaths of children under five years of age resulted from wasting and convulsive diseases, being at the somewhat high rate of three per 1,000 or 15·8 % of those from all causes.

Lung inflammations accounted for 42 deaths, of which only four were of young children, this being an unusually small number both in itself and proportionately to those at other ages. The death rate in this class was 2·4, and its percentage to total deaths 12·8 %.

Of the 13 inquests held, six were on deaths found to be from “natural causes” and the remainder accidental—one being from “poison,” four “injury,” and two “drowning.”

## ABINGDON RURAL SANITARY DISTRICT.

Inspector of Nuisances, Mr. Edward Mudd.

OF the 1,602 premises which, during the last year, have been brought under inspection in this district nuisances were found to exist on 368—nearly the whole of which were abated in

accordance with the notices served. The details will be found in Table III. Rather more than a third of the number referred to defective closets and bad drainage, 60 to houses in bad condition or with unsatisfactory water supply, the same number to foul ditches and ponds, and nearly fifty to animals improperly kept.

The sewerage extension from the "borough" system to the Oxford and Radley roads has been completed by the connections to the houses being put in, but no other sanitary works of a general character have been undertaken during the year. This, however, will doubtless prove of great service to the locality to which it applies, the old cesspits formerly in use being a frequent source of mischief and of danger to health owing to the loose and porous nature of the subsoil in which they were made.

At Clifton-Hampden the complaint (to which reference was made in last year's report) from the Thames Conservancy Board relative to the escape of farmyard drainage into the river, has been remedied by the construction of tanks for the purpose of receiving the same, their contents being afterwards taken on to the land.

Thirteen samples of water were submitted to analysis by me, several of the number on account of illness occurring in connection with their use. Two only proved to be passably good, the remainder being more or less fouled, and six of them highly so. The necessary steps to remove the cause of pollution were taken in nearly every case, or a fresh supply was obtained.

Seventy-five premises have been disinfected by or under the supervision of the inspector after infectious illness occurring therein. Of this number 60 were on account of scarlet fever, and nine for diphtheria, the others, excepting one of small pox, being after attacks of enteric or simple continued fever.

In one case in which a cottage was hastily run up by the road side on the refuse and rubbish carted from Oxford, the

building was condemned and the owner required to pull it down to the first floor and convert it into a shed instead of a dwelling.

The inspector also reports four samples of milk and six of beer as forwarded by him to the County Analyst for examination. All were reported as being pure except one of the milks, from which a portion of the cream had been removed and replaced by water. Proceedings were not taken in this case, but the analyst's report was published in the local paper.

Two persons were proceeded against for exposing and transmitting infected clothing while several inmates of the cottage were in an infectious state subsequent to attacks of scarlet fever. A conviction was obtained in one case and a fine inflicted. The other was dismissed, the Bench thinking that there was not sufficient proof of guilty knowledge on the part of the person charged.

The most important event in the sanitary history of the year was the outbreak of scarlet fever in those parishes of the rural district of which the town of Abingdon is the centre; especially in Marcham, Steventon, Drayton, and Shippon—in which cases continued to crop up from the beginning to about the middle of the year; as also of measles, which appeared in nearly the same area during the fourth quarter. These two complaints, with diarrhœa, accounted for by far the greater part of the (132) attacks of zymotic illness included in the pauper sick returns of the year, which amount to 544 cases of "all diseases"—128 being those of children under five years of age (see Table II.)

In the report for 1883 it was stated that scarlet fever had appeared in the rural district at the close of the year, and that while several of the attacks could not be accounted for, there was reason as regarded some of the cases (especially at Marcham) to suspect the elementary schools in the borough as having been the source of infection. By the beginning of 1884 most of these cases had become convalescent, but in spite of the precautions taken it was found impossible to stamp out the



outbreak; fresh cases cropped up here and there, and though the majority of them were mild in type, it appeared in some families in a very severe form, causing a death at "Black Horse" in February; another in each of two families at Steventon, in March: these last not coming to the knowledge of the authority until the deaths were registered. A few weeks later the complaint broke out in a family of children living in another cottage in the same village, which was in a very bad sanitary state, and indeed unfit for habitation; three of the attacks ended fatally within three days. About the same time there was a similar outbreak at Shippon, and five deaths occurred there in one family in the course of a fortnight—these premises being also in an insanitary condition. In fact poor living, dirt, or overcrowding seems generally to have existed where the cases had a fatal termination—the children not having sufficient stamina to go through the disease. Every practicable precaution was taken to prevent the spread of infection, trained nurses (three in all) being provided to attend to the severer cases, as well as to exercise a general supervision over any others in the neighbourhood.

The question of the desirability or otherwise of providing hospital accommodation (under section 132 of the Public Health Act) for the reception of the persons attacked was carefully considered by the Authority, and I presented a report thereon in which I pointed out the entirely different circumstances of Rural and of Urban Sanitary Authorities in this matter, and I stated my conviction that the practical difficulties which would arise in working such an hospital (especially in a scarlet fever outbreak, where the sufferers were mostly young children, and in an extensive and sparsely populated area such as the Abingdon Union) would be greater than any benefits at all likely to result from adopting the plan, and I also expressed my opinion that the spread of infection could be more effectually controlled by obtaining the assistance of thoroughly trained nurses to deal with all known cases occurring in any given locality. This course

was adopted, and, as I consider, with very satisfactory results. The matter is one which has had my repeated and anxious consideration for many years, and while I fully recognize the immense advantage that would result if it was practicable to immediately remove to an hospital all persons who could not otherwise be thoroughly and effectually isolated *as soon as* attacked with any infectious illness—in practice this would be found quite unattainable in rural districts, inasmuch as information of any initial case rarely reaches the Sanitary Authority until the attack has so far advanced that removal would be attended with a great increase of risk to the patient, and often not until infection has already spread, at any rate to some other members of the family. Furthermore, as yet notification to the Sanitary Authority is not compulsory under the Act (an omission very greatly to be regretted), and as even under existing circumstances no inconsiderable proportion of attacks are kept as secret as possible while many of the milder ones are not recognized and brought under medical treatment (although equally infectious) and consequently never come to the knowledge of the sanitary officers, if compulsory removal to the hospital became at all the habitual practice of the Authority, such concealment would, I am convinced, become still more general; on the other hand, if it were only insisted on in special cases the hospital would be comparatively of little use. As regards the majority of the RURAL districts in the combination this is the conclusion to which I have come, my experience leading me to rely with more confidence on the continued supervision of the cases in the localities where they occur, but especially on the placing each infected neighbourhood in charge of a nurse competent to effectually carry out the sanitary precautions required to prevent transmission of infection, to the most complete isolation of the infected families that is practically attainable, and (where it can be carried out) to the removal of the healthy members to an empty cottage, where they can be kept under supervision for a period at least equal to that of

the incubation stage of the disease, thus setting free the infected cottage as a temporary hospital for any who may fall ill either in the same or in neighbouring families. This plan was steadily carried out during the outbreak in question, three nurses being employed by the Sanitary Authority in the way I have indicated, and although until the middle of the year cases continued to occur in fresh localities from time to time, there was rarely any connection traceable between them, and the attacks were for the most part limited to one or two families in each place. The last death occurred at Shippon towards the end of May, in the family to which I have already referred, where the disease assumed a virulent type, the premises (as was the case in the majority of the fatal attacks) being too densely occupied and the people careless and not of cleanly habits.

In the last three months of the year measles made its appearance both in the town of Abingdon and in the neighbouring parts of the rural district, and quickly became very general among young children and infants. There were 11 deaths from this complaint, of which two only were of children above five years of age.

Small pox was brought from London to Drayton, Oxon, early in May, by a girl who had visited Homerton and sickened on the day of her return. The rash appeared two days later, when a medical man was sent for, and as soon as the case was reported to the Sanitary Authority I advised the immediate removal of all the other members of the family (seven persons) to an unoccupied cottage near, where they were revaccinated and prohibited from leaving the premises for a fortnight. A trained nurse from "West Malling" was placed in charge of the first case which was a tolerably mild one, but three other persons in the family, who unhappily had been infected before they were removed, fell ill and were taken back to their own cottage for treatment; one of them—the father, a man of nearly 60—died, the others recovered, and no case occurred anywhere else in the village.



A few isolated attacks of diphtheria had been reported during the year at Drayton, Toot and Marsh-Baldon, Wytham, and Steventon, but there has not been anything in the way of a general outbreak in any part of the district. At each of the three last mentioned places a young child succumbed to the attack, but in only one instance was the sanitary condition of the premises found to be seriously defective and the water supply fouled by a cesspit within some 14 feet of it, the family being also of dirty habits. The closet was removed and the well cleaned out.

Enteric fever has also been certified as fatal on two occasions, and two or three other attacks have been reported, but these also were quite isolated, and there was not any spread of infection subsequently. At one premises at Sutton Wick the water supply, which was believed to be fouled by soakage from the farmyard, proved on analysis to be distinctly polluted, though not to any large extent. The well was cleared out and the use of the farmyard for cattle discontinued. The only other case certified as fatal was that of a child of four years of age at Stadhampton.

During the year 412 births (M. 202, F. 210) were registered, and 247 deaths (see Table IV, A and B) which, corrected for the deaths of four persons in the Union House but belonging to the "borough" and of two former residents in the district who died in Moultsford Lunatic Asylum, amounts to 245 (M. 140, F. 105), and the respective rates for the year per 1,000 of the estimated population are births 30·4, deaths 18·1—the former being nearly identical with, and the latter 2·0 per 1,000 in excess of the corresponding rates for the previous year, and the highest since 1879. This increase is mainly due to the mortality from scarlet fever and measles already referred to—which accounts for 26 out of a total of 37 deaths due to all "zymotic" complaints, the death rate for which was 2·7 per 1,000 for the year—or nearly double that of 1883, viz: 1·5. This involves a corresponding increase in the percentage of

total deaths to births, which rose from 53·8 % to 59·5 %, while the deaths from measles—mainly of infants—raised the percentage ratio of deaths under one year to births from 9·9 % to 12·4 %—see Tables V and VI.

Consumption accounted for 13 deaths, 10 of which occurred between the ages of 15 and 50. Lung inflammations proved fatal to 32 persons, of whom 15 were under five years of age. Of these deaths 14 occurred in the first and 10 in the fourth quarter of the year, while there were only eight in the intervening six months. The respective death rates for these two classes of disease were 1·0 and 2·4 per 1,000.

Under five years of age 36 infants and children died from wasting and convulsive diseases (see Table IV) being at the rate of 2·7 per 1,000, but of these 22 survived birth but a few weeks, and several infants born prematurely are included among them.

Of the 85 persons who died during the year above 60 years of age, being nearly 35 % of the mortality at all ages, only 30 had not reached their seventieth birthday, and about the same number their eightieth, while 20 were between the ages of 80 and 90, and three were fairly on the way to completing the century. On the other hand the deaths in the working time of life, between 15 and 60, were only 22·5 % of the whole.

Eighteen inquests were held during the year, 12 of the deaths being found to be due to “natural causes” and the rest to “accidents.”

## ABINGDON URBAN SANITARY DISTRICT.

Inspector of Nuisances, Mr. George Winship.

OF the 375 premises which have been inspected in this district during the past year only 32 were found to have nuisances existing thereon, most of which related to defective closets and neglected drains (see Table III) which were promptly set right.

I have also found the general condition of the courts and alleys materially improved, although there are still some, tenanted mainly by the poorest residents in the town, in which it is very difficult to get closets and drains kept in a reasonably clean and wholesome state, and where I fear that it will be almost hopeless to expect it until self-acting flushing arrangements are introduced, which shall be too simple and strong to be easily damaged, and which will fulfil their object irrespective of attention or the want of it on the part of the persons using them.

The slaughterhouses, cowhouses, and bakehouses are also reported by the inspector as having been kept in proper condition, but nuisances have been dealt with at four of the piggeries in the district.

The matter of the substitution of the water from the mains of the Corporation for the old and faulty supply from wells has had considerable attention, and 51 new services have been laid on, making a total of 185 up to the end of the year. Many of these however supply several houses, and the average consumption per head is found to be about six gallons a day. In connection with this matter I have examined five samples of water from various parts of the district and from houses of different classes: I found them all distinctly contaminated and unreliable, and three of them were so in a high degree.

I also presented a report on the water question, the chief points in which I may here briefly recapitulate, as in my opinion the closing of the common wells and the general use of the town water supply in place thereof is the chief and most important of the sanitary improvements still remaining to be carried out in the district, and the one which perhaps more than any other will have the most directly beneficial results on the public health. I pointed out that the well waters are, and are likely long to continue, thoroughly unreliable—while that brought down from Wotton is wholesome and fully to be depended on for every purpose; and further, that where water has to be pumped or fetched by hand, the flushing of the drains



and closets is but too certain to be imperfectly attended to on account of the labour and trouble it involves; but that this flushing is of the most essential and indispensable importance to the healthiness of the house, inasmuch as it profits little to have good and well-flushed public sewers, if the house drains are ill-kept and liable to be clogged with a deposit of decomposing filth, which, under a better system of water supply would have been washed into the sewers as quickly as it entered the drains, and thus would have been removed at once from the premises. I am inclined to believe that the complaints made from time to time of offensive smells escaping from the sewer gratings are not unconnected with this state of matters; during the past year, as in previous ones, such complaints have been made, and in order to remedy them great attention has been given to the flushing; additional flushing places have been provided, and experiments have been carried out by Mr. Winship—the borough surveyor—in the hope of getting rid of the annoyance by the use of deodorants and disinfectants. The flushing of the main sewers by means of the flush tanks—or the large hydrants used for the purpose—should, as now carried out, be sufficient to keep them sweet and clean under ordinary conditions, notwithstanding the flatness of gradient of some of the sewers; but if the sewage itself is fouled, and retarded in its passage into them from the house drains, on account of these last being more or less coated with deposit by reason of insufficient flushing, any air escaping from the sewer gratings must almost inevitably have an offensive smell.

On the whole, had it not been for a somewhat severe and troublesome outbreak of scarlet fever in the earlier part of the year, and of measles towards its close, there would have been but little matter of an unsatisfactory nature to refer to in this report. These two complaints however account for 44 of the new cases of pauper sickness returned by the clerk to the guardians, which were 138 in all, 54 being children under five years of age. To them also (with the exception of four infantile

deaths from diarrhœa) the entire zymotic mortality of the year was due.

In the last months of 1884 scarlet fever had appeared in the town and occasioned two deaths. I found it impossible to trace out the channel by which it was introduced into the district, but there was some reason to believe that its spread was due at first to the attendance at the elementary schools of children who had imperfectly recovered from extremely mild attacks passed through without medical attendance or sanitary control, or who belonged to families where such cases had occurred. During the first three months of 1885 little groups of attacks were reported at short intervals within the borough limits, as well as in the adjoining portions of the rural sanitary district; and as several of these attacks had been at first of a very mild type--and only came under medical charge for the secondary affections consequent mainly on the neglect of proper treatment and care in the first instance—it is not surprising that the mortality was high in proportion to the number of cases reported, and that the outbreak continued so long. Unfortunately when the eruptive first stage of the complaint is slightly marked and of a mild type, too many persons in all positions of life are apt to make light of it, forgetful of the undoubted fact that such attacks are frequently followed by a second stage, the symptoms of which are of the gravest and most dangerous character, as a direct consequence of the neglect and heedless exposure to chill previously undergone. It is also to be remembered that these slight cases are as capable of spreading infection as the severest ones, and that in spite of their mildness they often are the occasion of attacks of the most serious nature in persons to whom they convey the disease. In the present outbreak I have no doubt but that a good deal of concealment was practised, especially where it was feared that knowledge of the nature of the illness would interfere with the carrying on of the business or occupation of the parents. This fact would have materially interfered with the utility of any hospital intended for the re-



ception of infectious patients, even had such an institution been available (which was not the case), and indeed I am strongly of opinion that without compulsory notification to the Authority of all attacks of such illness comparatively little practical good would result from their provision.

I did not consider it desirable to advise the closing of the elementary schools, partly for the same reason, and also because in an urban district the children are inevitably thrown into contact in the courts and alleys where so many of them live, when they are kept away from school; but every practicable precaution was taken to prevent the children of families where infection was known to be present from continuing to attend school, and to prevent them from mixing with other people.

As the outbreak did not subside rapidly, I after consultation with all the medical men practising in the town, advised that skilled nursing attendance should be obtained by the Authority. This was done, and the arrangement worked very successfully, not only in the actual nursing and sanitary supervision of the sick, but also in the discovery of attacks that otherwise would most probably never have been heard of. The entire number of cases reported was 68—occurring in 46 families, living mostly in the poorer parts of the town, such as the Vineyard, Bury-lane, Abbey, East and West St. Helens, &c., &c., and the mortality was in each of the first six months of the year 4, 4, 5, 2, 2, 1 respectively, making 18 in all—two-thirds being amongst children under five years of age. After Midsummer the complaint was entirely at an end, but it was followed by the appearance of measles, which before long became very general among the younger children and infants under a year old, of whom five died out of a gross mortality of eight, one person being 54 years of age.

Diarrhœa also accounted for the deaths of four very young infants in August and September, but these three complaints exhaust the list of fatal zymotic illness for the year—in fact there has not been any attack reported of the other diseases included in this class.



The registered births for the year were 172 (M. 81, F. 91) and the deaths 113, or, corrected by the addition of four deaths of inmates of the Union House formerly living in the town, 117 (M. 61, F. 56)—being an increase of 17 over the number dying in 1884. As compared with the two previous years the excess is even more marked; but if we eliminate the zymotic mortality in each case the increase in the deaths from all other causes was even when compared with 1881 (when the death rate was but 15·4 per 1,000) only three in number. Estimating the population at 5,698 the year's birth rate was 30·2 per 1,000 and the corrected death rate 20·5 (see Table V) -- being an excess of 4·0 per 1,000 on the mean rate of the combined districts, and the highest reached in Abingdon since 1879.

The total zymotic deaths were 30 in number, or slightly above 25 % of those from all causes, and with one single exception they were entirely among children, 22 of whom were under five and the rest under 12 years of age. The death rate per 1,000 was 5·3.

Consumption also was unusually fatal and accounted for 17 deaths, or 14·5 % of the whole. Thirteen of the number occurred at the active period of life, between the ages of 15 and 45, while two deaths thus certified were infants of a few months old, and two elderly persons of 58 and 65 also fell victims to it. The death rate for this disease was 1·7 per 1,000, and rather above that for 1884.

Comparatively few deaths were due to the wasting and convulsive diseases of children, only nine being thus certified—equivalent to 7·9 % of the total mortality, and little more than half the corresponding mean rate for the entire combination—see Table VI. The probable explanation is that the scarlet fever and measles outbreaks carried off several children of feeble vitality and unable to resist the infection, who, even if these diseases had been absent from the district, would still not have outlived the year, but would have swelled the return under this heading; as the number of “zymotic” deaths at this age was

considerably greater than the actual INCREASE of mortality from "all causes." Altogether there were 39 deaths under five years of age or 33·4 % of those at all ages. Thirty-six persons, or 30·8 of the whole died above 60—only eight of whom had passed their eightieth birthday, while seven were between 70 and 80. As in the other towns included in the combination the proportionate percentage of persons dying above 60 years of age is considerably below that of most of the rural districts—or the "mean" of the whole.

Two inquests were held, the causes of death being in one case "natural," in the other "suicide" by drowning.

## WALLINGFORD RURAL SANITARY DISTRICT.

Inspector of Nuisances, Mr. A. Withers.

THE inspector's return for the past year shows 1,906 premises, or about four-fifths of those contained in the district, as inspected, and the list of nuisances abated will be found in Table III—in addition to which a number of minor ones were dealt with and set right, in compliance with his request and advice, without being formally brought before the Authority.

Two samples of water were submitted to analysis by me; one of them was found to be distinctly, though not extremely, polluted by soakage from a manure heap within a few feet of the well. The other (which I examined in connection with a set of analyses relative to the new water supply in the urban district) I need not here refer to further than to state that it was an excellent water and very free from organic contamination, although, like many samples from deep wells and borings, it yielded chlorine and saline ammonia in some excess.

The question of the proposed drainage of North Hagbourne has again occupied the attention of the Authority in consequence of an application made by them to the Local Government Board

to form a special drainage district to deal with the matter, and a good deal of consideration was given to the question of its limits, which were ultimately settled so as to include the greater part of Didcot village, and of the railway station, works, and adjacent houses, as well as North Hagbourne itself; and Mr. Winship, of Abingdon, was instructed to prepare a scheme for dealing with this area, to be submitted to the Inspector of the Local Government Board at an enquiry to be held by him on the spot. The whole question was then fully gone into before Mr. Codrington, and I gave evidence as to the necessity which, in my opinion, existed for providing proper sewerage for the places in question; drawing attention also to the fact that nearly all the sewage from the railway station (which is, especially from the passenger platforms, &c., of considerable amount) runs along an open channel by the side of the railway to the ditches, whence, with the sewage of North Hagbourne, it ultimately gets to the river.

The year's record of zymotic outbreaks is very brief, none of the graver infectious complaints having appeared in the district except in rare and isolated attacks, and the mortality being practically limited to a few deaths from measles, whooping cough, and diarrhœa.

The return of pauper sickness for the twelvemonth includes 84 entries of "all diseases"—11 being those of children under five years of age, and nine attacks of the complaints just mentioned.

At Crowmarsh there was an outbreak of measles early in the year, which had probably extended there (as also to Long Wittenham) from the town, where it was prevalent at the time. It spread rapidly (and the schools were temporarily closed) but as quickly died out after having caused three deaths in the two villages. In the second quarter whooping cough occasioned three deaths of young infants at East Hagbourne.

Diarrhœa was certified as the cause of 14 deaths, half of which were those of infants and children under five years old;



and of the remainder five were inmates of the Lunatic Asylum, not belonging to the district, as was also the one person whose death was registered from enteric fever.

The only death certified as due to diphtheria was that of a man who came home from London ill of a disease of long standing, which after an operation took an unhealthy action and proved fatal. The cottage was in a damp locality and its sanitary surroundings unsatisfactory.

The total births registered in the district during the year were 339—M. 164, F. 175 (see Tables IV and IV B)—and the deaths 235, of which 54 occurred in Moultsford Lunatic Asylum—two persons only having been residents in the district prior to their admission. On the other hand, 21 of the deaths in the Union House (in the Borough) must be credited to this district, and one of those in the Cottage Hospital. Making these corrections we find the true number of deaths from “all causes” was 204—M. 107, F. 97—and 19 of them, or 9·3 % of the whole were due to the various zymotic diseases already mentioned; the respective rates per 1,000 of the estimated population being births 30·0, deaths 18·1, zymotic diseases 1·7—the first and last a small fraction higher, and the deaths 1·5 per 1,000 in excess of the corresponding rates in 1883.

Consumption accounted for 10 deaths, and deducting four (which occurred in the Asylum) the corrected rate per 1,000 was only 0·5, or but little over a third of the average for the combined districts, and under 3·0 % of the total mortality.

Lung inflammations occasioned 36 deaths, and 17 of them were patients in the Asylum, two only belonging to the district; the “corrected” number was 22, or at the rate of 1·9 per 1,000, and amounting to 10·8 % of the year’s mortality.

Twenty-five children less than five years old died from various wasting and convulsive diseases, see Table IV B—equivalent to a death rate of 2·2, and a percentage of 12·3 % of the total deaths.

Nearly all the foregoing rates are approximately the same as, or rather below the corresponding averages for the entire combination—see Tables V and VI—as are also the percentage ratio to births of the deaths of infants less than a year old (10·6), and of deaths under five to those at all ages (28·5). On the other hand 39·7 % of the “corrected” mortality (81 deaths) was of persons aged over 60—18 of them being inmates of the Union House and 26 of the Asylum. Of this number 19 were between 60 and 70, 38 between 70 and 80, and 23 from 80 to over 90 years of age.

The entire mortality at all ages equalled 60 % of the births, and was nearly 8 % above the corresponding average for the entire combination.

Seventeen inquests were held; seven of the deaths were found to be due to “natural causes” and seven to “accidents,” two of these were from lightning and three burns and scalds. The verdict in two instances was “found dead.”

## WALLINGFORD URBAN SANITARY DISTRICT.

Inspector of Nuisances, Mr. S. Goldsmith.

THE inspector's return for this district, see Table III, shows 493 premises inspected, and 147 on which nuisances were abated, with 23 on which earth closets have been adopted. He also reports a 15-inch stoneware pipe drain laid in High-street, and two smaller ones in Wood-street and Goldsmith-lane, to carry off surface water, &c., &c., but no connections with “closets” have been allowed to be put in. The Kine Croft water-course, Kine Croft, has been cleaned out, but I have found drainage from a few premises abutting thereon still passing into it, to which I called the inspector's attention. The principal sanitary work of the year has been in connection with the new town water supply, the boring for which is in a field at Slade

End, near the railway station, and is of a total depth of 53 feet, passing into the green sand. Early in the year I submitted three successive water samples, taking from the boring, to careful examination, and found that they all yielded considerable though somewhat varying proportions not only of "saline" but also of "organic" ammonia, averaging respectively 50—and 11 parts per million. As the amount of chlorine it contained and the proportion of oxygen absorbed from potassic permanganate was also in excess of the quantity desirable in a first-class water, the last-named varying considerably in the three samples, I thought it not unlikely that there might be some little soakage from the gas works, which are near, and I therefore advised that an additional length of the boring should be lined with iron tube so as effectually to exclude all possible contamination with surface water, and also to keep out any tarry or ammoniacal matters, should there by chance be any soakage of the same into the ground near the said works. This advice was acted on, and another 10 feet length of tube lining was put in with very satisfactory results, a second series of three analyses showing that the "organic" ammonia was diminished by half, the absorbed oxygen by two-thirds—the results also being constant; but as the saline ammonia and chlorine present in the water still gave a rather high figure I examined a sample taken from the boring at Moultsford Lunatic Asylum, which is of nearly the same depth and sunk through the same strata (in the opinion of the late Rev. J. C. Clutterback, of Long Wittenham, whose knowledge of the local hydro-geology of the district was very complete). The results were so nearly identical with those obtained from the town samples that I felt satisfied that they represent the natural water free from any trace of pollution or admixture. I also, for further confirmation, analysed a sample from another deep well sunk near the market place, which gave similar though not identical results, and was then able to report to the Sanitary Authority that the water they had obtained was perfectly reliable and good, and



in all respects fit for domestic purposes. Subsequently the necessary contracts were entered into for completing the works, laying mains, &c., and when they have been carried out and the supply comes into general use the beneficial results will beyond doubt be seen in an improved condition of the public health of the district.

Early in the year there was an outbreak of measles amongst the children attending the national schools, which quickly became very generally diffused, although it subsided almost as rapidly after the closing of the schools. All practical precautions were taken to check its spread, but it seems probable that the majority of the children who were in a condition susceptible to the infection were attacked, and three died (all under the age of five years), and these, with one death from croup, made up the total "corrected" mortality of the year from zymotic diseases.

Only 18 new cases of pauper sickness, of which six were children under five, came under the care of the district medical officers; the zymotic diseases being five attacks of measles.

Eighty-two births (M. 32, F. 50) were registered during the year, and 76 deaths, of which 25 occurred in the Union House, and two in the Cottage Hospital, five only being previously residents in the district. After making the required deduction for these (22) and adding three deaths outside the district of persons belonging thereto, the corrected number is 57 (M. 27, F. 30), and the year's rates per 1,000 of the population were—births 33.5, deaths 21.7—this last being the highest in the combined districts for the year, and more than 5.0 per 1,000 above the mean rate of the entire combination. As I have pointed out in former reports, in a district with so small a population as the town of Wallingford a few deaths more or less have a marked effect in increasing or lowering the calculated rates, although they may have no special sanitary significance. But taking a considerable series of years there are two points in

the mortality returns of the district which are deserving of attention as indications of lowered vitality depending in no small degree on defective sanitary conditions and surroundings, viz: the generally high death rate of young children, and the prevalence of consumption. In 1884, as in former years, the record of the district is in these respects unsatisfactory, as 33·2 % of the deaths at all ages occurred amongst children under five, of which 21·1 % was of infants less than a twelvemonth old—or 13·6 % of the total births; so that, although the birth rate of the district was the highest of any in the combination for the year, the proportion borne by the “corrected” deaths to births was also the highest, being 64·8 %—see Table V. As regards consumption—in most years a fatal disease in the district, eight deaths were recorded in 1884—being one-fourth more than occurred in the rural district with a population more than four times as large; the death rate was 2·5 per 1,000, and its proportion of the mortality from all causes 14 %. As it is a disease largely dependent on the amount of water in the subsoil, and as the distance of the subsoil water from the surface is generally materially lowered by good drainage, the carrying out of a proper system of sewerage for the town, in addition to its other great and unquestionable benefits, would in all probability reduce the frequency of this scourge of the young and middle aged—all the deaths from which occurred, with but one exception, between the ages of 25 and 50.

I have already referred to the zymotic mortality, which was at the rate of 1·2 per 1,000 and formed 7 % of that from all causes. Seven deaths from wasting and convulsive diseases of children under five, and 10 deaths from lung inflammations, give rates respectively of 2·2 and 3·2—see Table VI.

Four inquests were held during the year, one on an accidental death, the others were on deaths from “natural causes.”

## BRADFIELD RURAL SANITARY DISTRICT.

SUB-DISTRICT I.—Inspector of Nuisances, Mr. Wm. E. Bunce.

SUB-DISTRICT II.— „ „ Mr. Jas. Ford.

IN No. 1 SUB-DISTRICT 784 premises have been inspected last year, and detailed surveys were made of 43. Nuisances were found on 243 of the number (see Table III), of which 223 were abated before the end of the year; the majority relating to closets and drains or animals improperly kept, and nearly 40 to houses dirty, or in bad condition, or overcrowded. Earth or pail closets have been introduced in 35 premises, making, with those previously provided, a total of nearly 700 now in use in the entire sanitary district, as to which my own observations and the reports of the inspectors satisfy me that on the whole they are very fairly kept, and that their introduction has proved decidedly successful and a benefit to the places where they have been adopted.

In consequence of the large amount of cottage building recently going on in some parts of Mortimer, for which parish Urban powers had been granted to the Authority by the Local Government Board, bye-laws as to new buildings were adopted and sanctioned by the Board, and they are now in force.

My attention has also been called to the fouling of a water-course by the discharge of foul water and washings from the Mortimer Brewery thereto. Some amount of improvement has since been made, but to an insufficient extent.

At Theale, where complaints of offensive effluvia given off from the ditches on the north side of the village have from time to time been made in previous years, the upper part of the ditch has been filled in, the drains which emptied into it having previously been cut off, and a new drain to carry the waste water from the brewery made, which discharges itself into the ditch a hundred yards lower than before. No nuisance has arisen since the work was completed.



It has been found necessary to take proceedings against the owner of 11 houses in Park-road, Oxford-road, for the construction of five dead-wells within 15 feet of their back walls, in contravention of the bye-laws. An order was made by the Bench requiring the cesspits to be emptied and filled up and the drains thereto removed. This was done, and the slop water is now utilised on the garden, earth closets being also in use.

In No. 2 SUB-DISTRICT 288 premises were inspected and 187 nuisances detected, all but 10 of which have been abated; 60 of them related to closets and drains, and over 40 to cottages in a foul or dilapidated state.

Four samples of drinking water have been submitted to analysis by me from both sub-districts, in consequence of illness arising in connection with their use; neither of them was a good and reliable water, and two were exceedingly foul. A fresh well was sunk in one case, and in the others they were cleaned out.

Complaint has also been made of the smell from the lime taken from the "purifiers" at the Pangbourne gas-works, which had been put in a heap near the road. The premises are rather limited in area, but they are very well kept and clean, and on inspection no nuisance was found existing—but the manager promised to have the used lime kept at a greater distance, and got rid of as quickly as practicable.

Comparatively little serious zymotic illness has occurred, but there were a few local outbreaks of measles and scarlet fever almost entirely non-fatal, and also one or two isolated ones of small pox and fever as to which I have to make a few remarks.

At the close of 1883 both the first-named complaints broke out among the children attending the Theale elementary schools, and measles only at Kentwood Hill, also in Tilehurst parish. It was found necessary to close both schools for several weeks (and to postpone the Government examinations) by which time the measles outbreak had entirely subsided, although later in the spring there was a limited one at Englefield,

causing one death. Occasional attacks of scarlet fever continued from time to time to be reported at Theale during the first four months of the year, in one or two instances in cottages after two months had passed since the preceding cases, and where every care had been taken to carry out sanitary precautions fully. Later on there were sporadic attacks, or very limited and localized outbreaks at Mortimer, Burghfield, Sheffield Bottom, Beenham, and also at two dairy farms near Ufton and Sulham, at which latter place the sanitary conditions were found to be unsatisfactory, and the water on analysis showed much "organic" pollution, though drawn from a deep tube well. The sale of dairy produce off this farm was at once stopped, the soakage cesspit for slops, which was near the dairy, filled up, and a cemented drainage tank constructed, the contents of which are taken away from time to time—a new earth closet being also provided. At Ufton also the milk was kept on the premises, and used to feed pigs and calves. Throughout the year the majority of the attacks were mild, and none were fatal.

Small pox has appeared in the district three times. The first case was reported at Jennett's Hill in March, and the next a few days later at Pangbourne New-town—both patients having been recently discharged from a ward in Reading Hospital into which the infection had been accidentally taken by a woman under treatment for another complaint. The first case fell ill immediately on her return home from the hospital, and the attack was mild; the second—11 days after going home, and her illness was more severe. In June there was a small outbreak at a dairy farm in Yattendon, the patient being a servant who had 13 days previously been to her home, and was there in company with a relative who had come from London and who was employed in one of the dustyards there. This man however is not known either to have been ill himself or to have given the infection to any other person: still a man engaged in work of this kind is obviously not unlikely to be

exposed to and to be the means of disseminating infection. The girl in question had also at her master's house been sharing her room with the servant of some visitors who had come from Hackney, but there was no evidence obtainable that any of these persons had been recently exposed to infection; yet from one of the two sources named she must apparently have taken the disease. The attack was an exceedingly mild one, and barely recognizable for some days, during which time another member of the family and a man employed on the farm were infected—the last-named having a very severe form of the disease and his illness proving fatal. The dairy work was absolutely stopped on the premises, and the cattle taken to a farm near Oxford, the family was quarantined, revaccination generally performed throughout the village, and a small well-isolated cottage in a field at little distance was provided by Mr. Waterhouse for the purpose of a hospital; the services of a trained nurse being obtained in this, as in each of the other cases, to take charge of the patients and to carry out in detail the necessary sanitary precautions.

A few attacks of diphtheria have also come to my knowledge, and one proved fatal in September to a child living at Mortimer. A single case of typhoid fever (non-fatal) was reported, which had been removed from Reading to Basildon while in the invasion stage of the disease.

There has also been a certain amount of whooping cough, especially in the first quarter of the year, in different parts of Tilehurst parish—and following the measles outbreak: nine children, all but two under two years old, died from these attacks.

The greater part of the year's mortality from "zymotic" diseases was due to this complaint and to diarrhœa, which occasioned 10 deaths (five in the first quarter and five in September), six of the number being children under five; only four deaths being caused by all the other diseases included in this class.

The amount of pauper sickness returned as "new cases"



was, as is usual in this district, extremely small—24 in all, of which two were of children under five, and four were “zymotic” attacks.

It need hardly be said that this “minimum” of pauper sickness is no evidence of any special immunity from illness among the poor of the district, but is simply the result of the general policy of the relief authority in relation to this matter.

The number of births registered during the year was 605 (M. 303, F. 302), and of deaths 274, or, with the addition of those occurring in Reading Hospital and the County Lunatic Asylum of persons previously living in the district, 282 (M. 151, F. 131), being at the respective rates of 32·6 and 15·2 per 1,000 of the estimated population—the first 1·5 above, and the second 1·1 under the mean rates of the combination of districts.

The zymotic deaths to which I have already referred were 23 in number (see Table IV B) and at the rate of 1·2, while consumption accounted for only 14, or at the rate of ·7 per 1,000; lung inflammations occasioned 41 deaths (14 being of children under five) of which three only occurred in the summer quarter,—the death rate was 2·2 and was almost identical with the mortality from the wasting and convulsive diseases of children—see Tables V and VI.

As regards ages at death, the percentage of deaths at all ages and of those under one year old to the registered births, are below the mean rates for the combination, being respectively 46·6 % and 9·1 %; the proportion of the entire mortality occurring below the age of five years being also slightly under the “average,” as are those of the various groups of ages from 5 to 60; consequently a larger percentage of the total deaths occurred of necessity among the aged, this rate being 4 % above the “mean” for the combination.

Of the 117 persons thus dying five were above 90 years of age (one having all but completed the century), 27 were between 80 and 90, 50 between 70 and 80, while only 35 had failed to attain their seventieth birthday.

Of the 13 inquests held, death from “natural causes” accounted for five, “accident” six, and “suicide” two.

## COOKHAM RURAL SANITARY DISTRICT.

Inspector of Nuisances, Mr. G. Millin.

IN this district the return of the inspector shows 55 premises inspected and 23 nuisances abated during the year—see Table III.

At Littlewick my attention was called to the defective sanitary arrangements of a pair of cottages, where the cesspit closets being close to the side walls of underground kitchens made them damp and foul from the soakage of the filth, the sinks in these kitchens were untrapped and led to unventilated soakage pits. As there was ample garden ground for the disposal of the slop water I advised the entire removal of the sinks, cleaning out and filling up of the cesspits, and the providing of an earth closet, which was carried out. Complaint was also made of pollution of drinking water at Cockpole by an adjoining pond which had a thick muddy deposit in it, and, as was supposed, an overflow from a cesspit. This last was found to be an error when the pond came to be cleaned out, which was done after the harvest.

The weekly returns of “new cases” of pauper sickness show 472 persons as coming under treatment during the year, of whom 93 were children under five years old. There were 84 zymotic attacks, mostly measles (66 cases), which complaint, with whooping cough and diarrhœa, accounted for the greater part of the mortality occasioned by this class of diseases, and it occurred mainly in the second half of the year.

As regards measles, in August and September it appeared at Bray and Holyport, spreading rapidly and resulting in four deaths. The school at Braywick was closed for a time. Two months afterwards there was a similar outbreak at White Waltham and Waltham St. Lawrence, again spreading with equal rapidity, apparently through attendance at the schools, which were accordingly closed. The bulk of the pauper cases already referred to occurred here, and there were three deaths.

Scarlet fever also made its appearance in the district to a small extent at Oakley Green, Fifield, and Cookham early in the year and caused one death. The usual precautions against spread of infection were carried out with fair success.

Two deaths resulted from diphtheria, and no other outbreaks were reported. In one instance, at Bray, the disease appeared in three adjoining houses situated near the river, the sanitary conditions being otherwise good. The other case was at Cookham. There was a certain amount of whooping cough during the spring months, and three deaths were due to the complaint at Littlewick and Shottesbrook.

Diarrhœa, like measles, accounts for eight deaths, five of which were of children under five. These occurred between July and September, but although there were a considerable number of attacks, the cases were scattered over the district and there was no serious outbreak either in extent or general severity of type.

Two deaths are recorded from enteric fever: one however was that of a former resident who died in Moultsford Asylum, and the other was a person living in a cottage at Oakley Green whose attack was at first stated as "sunstroke." There was no other history of the case; the sanitary conditions of the premises were fair, except as to the water supply which was unsatisfactory and scanty, as is usual in the locality. There were no other attacks.

The births registered during the year were 269 (M. 141, F. 128) and the deaths 138, to which must be added 21 of persons belonging to the district but dying outside it: viz., in the Union House (14), Cottage Hospital (2), both in Maidenhead, or in Reading Hospital or Moultsford Asylum (5); making a corrected total of 159 (M. 92, F. 67) and equivalent to a yearly death rate of 18·1 per 1,000 of the estimated population—the birth rate being 30·5—Table V; the last was nearly the same as, and the first nearly 2·0 per 1,000 above the corresponding mean rates for the combined districts.



The deaths from zymotic diseases, most of which have already been referred to, were 25 in all—14 being of children under five years old—and the death rate was 2·8 per 1,000, or nearly 16 % of the mortality from all causes (Table VI), a rate both considerably above the usual one for this district, and also above the “mean” of the year for the combination; the excess being wholly due, as already explained, to the mortality caused by measles and diarrhoea, each of which occasioned eight deaths.

The same number, eight, also resulted from consumption (or including one death in the Union House, nine), being at the rate of 1·0 per 1,000, and all but one occurring between the ages of 20 and 35—nearly 6 % of the deaths at all ages are thus accounted for.

Lung inflammations occasioned 23, of which three occurred outside the district. A third of the number were children under five, and the corrected death rate was 2·3, or 12·6 % of the total deaths.

Children’s wasting and convulsive diseases carried off 12 under five years old, being 7·5 % of the entire mortality, and the death rate 1·4 per 1,000.

Twenty-one infants died within a twelvemonth of birth, or at the percentage rates of 7·8 % of the total births and 13·2 % of the deaths at all ages: this last being 6 % under the mean rate for the combination, although the deaths at all ages were equal to 59·1 % of the births and just as much above the corresponding mean—see Table V.

Of the total mortality 41·5 % occurred above the age of 60, this being, with one exception, the highest proportionate rate for the year. Of the 66 persons so dying, 24 were under 70, 25 had not attained 80, and 13 were below 90, while three had passed it, one of whom had attained the great age of 99 years.

Seven inquests were held on deaths, of which one was due to “accident” and the others to “natural causes.”

## MAIDENHEAD URBAN SANITARY DISTRICT.

Inspector of Nuisances, Mr. T. Nash.

THE sanitary inspector's return for this district (Table III) shows 113 premises inspected during the past year and 58 ordinary nuisances abated in accordance with the notices served or the advice given. Twenty-one of the number refer to ill-kept cowhouses and piggeries, and as regards one of the latter it became necessary to take proceedings against the proprietor for having surreptitiously buried in a manure heap on his premises, situate near the centre of the town, two pigs that had died of swine fever, and a third at another piggery belonging to him also in the district. The disease was believed to have been introduced by some animals the man had bought shortly before, but he had other piggeries within the district which also were badly kept. A fine of £3 and costs was imposed for the one offence, and of lesser amount for the other, and the infected mass was removed and buried in a field under about four feet of earth, having first been very thoroughly disinfected with liquid carbolic acid in accordance with my instructions.

Several cases of deficient or impure water supply have also been dealt with, and in reference to this most important matter it is satisfactory to be able to report steady, if not very rapid improvement. The water company have undertaken to supply the poorer class of houses at the rate of two pence per week, and 70 premises have been connected with their mains, the greater part of them being at Boyn Hill (where a better water supply has been long required), making a total of about 700 houses thus supplied at the close of the year. Eight tube wells have also been driven, and in one instance where complaint of a deficient and impure supply was made to me the well has been cleaned out and deepened, and the premises, with those adjoining, connected with the sewers.

There has also been a certain amount of extension of the general sewerage of the district, an 18-inch stoneware pipe main drain having been put in as a continuation of the King-street sewer up Castle Hill for some distance. I have also to note much improvement in the general management of the sewage farm.

Thirty-eight new houses have been erected under the old code of building bye-laws, the revision of the same not having yet been completed, and sanctioned by the Local Government Board. The proposed code was submitted to me after its revision by the committee appointed for the purpose, and I reported on it, suggesting certain alterations to bring it more nearly into accordance with the "Model Bye-Laws" issued by the Local Government Board.

The general condition of the slaughterhouses has also had my attention, and complaint having been made to me with reference to one of them, I visited it without notice to the proprietor, but found it exceedingly well kept and unobjectionable, except in so far as all slaughterhouses and similar places must be where shut in to a greater or less extent by houses, and situate in close and populous neighbourhoods. I at the same time inspected all in the district, and the same remarks apply to the whole of them with one exception. As regards this last, there was ground for serious complaint, on account of general neglect of cleanliness, and also because pigs were kept on the premises and fed on the blood and raw offal, a practice most objectionable in every way, and especially so in view of their being intended for human food, on account of the danger of thus spreading parasitic disease in the animals so fed. I reported to the Authority in this sense, pointing out at the same time the manifest advantages that would result from establishing one public slaughterhouse in a suitable locality for the use of all the butchers in the district, so that the existing private ones, which are in nearly every case much shut in by dwellinghouses and more or less confined in space, might be finally closed.



In the past year, as in the preceding one, there has been a marked absence of serious zymotic disease in the district, and the mortality resulting therefrom has been equally small. During the past two summers special watchfulness and care has been observed in the matter of removal of filth and refuse matters of every kind in view of the possible appearance of Asiatic cholera in this country, but although the dreaded visitor did not arrive, the extra precautions observed have unquestionably been more than repaid by the generally satisfactory state of the public health, and by the small death rates—both general and zymotic—both of which were nearly the lowest for the year of any district in the sanitary combination.

Small pox has been entirely absent, but in one instance it was necessary to take precautions against the probable introduction of infection by means of a lad visiting at a house at Shinfield while one of the inmates was suffering from the disease. The boy was revaccinated there under the direction of the Medical Officer of Health, but I considered it advisable that he should not return to Maidenhead till the case was at an end and the final disinfection carried out. The Sanitary Authority accordingly agreed to pay for the boy's keep where he was staying, for the time he remained there by my direction, and the family at Maidenhead were also revaccinated to guard against the possible results of any surreptitious communication.

There has been one fatal attack of diphtheria in a boy of seven years old; the house, in Albert-street, was in fair sanitary condition, and no evident cause for the illness could be discovered. Isolation and disinfection were strictly observed, and there was no other case.

Scarlet fever was only once reported, the patients (mother and child) having brought the complaint from a common lodging house in the borough of Windsor to one in Maidenhead. They were at once removed to the infectious ward at the Union House, the room and furniture used by them was cleansed and disinfected, and there was no spread of the complaint.

In the autumn months there was some considerable amount of diarrhœa, as is usual, but it was not of a severe or in any sense special character, and it resulted in only three deaths—two of infants and one adult.

Late in the year measles and whooping cough appeared in the district, and in some neighbourhoods became very prevalent. One of the elementary schools was temporarily closed on account of the outbreaks, and there were three deaths from the first named and two from the latter complaint.

The entire number of “new cases” of pauper sickness occurring in the year was 384, of these 82 were children under five years old, and 39 were zymotic attacks—nearly all measles or diarrhœa.

The births registered were 287 in number (M. 153, F. 134) and the deaths 137, or, adding thereto five of persons belonging to the district who died outside it (at Moultsford Asylum, Reading Hospital, &c.), and deducting 17—and 2 respectively from the mortality in the Union House and Cottage Hospital of persons dying there who were not previously residents in the district, the corrected number is 123 (M. 51, F. 72—see Tables IV and IV B), and the yearly rates per 1,000 of the estimated population were, births 32·6, deaths 13·2—the first 1·6 above and the last 3·1 under the corresponding mean rates for the whole of the districts. The ratio borne by the total “corrected” deaths to births registered was the very low one of 42·9, and by deaths occurring under the age of one year 9·7—see Table V.

The zymotic mortality was, as has been already stated, very small in amount, being only ten deaths in all, and equal to the low rate of 1·1 per 1,000 living, or 8·1 % of those from “all causes.” Of this number seven were children under five years of age.

Lung inflammations and consumption each accounted for 16 deaths, or 13 % of the whole, and were at the rate of 1·8 per 1,000. Of the 16 dying from phthisis (consumption) 14 persons were

between the ages of 18 and 50, the most active and vigorous period of life, the remaining two were between 60 and 70. Of the 29 deaths in the Union House during the year seven resulted from this disease.

The wasting and convulsive disease of children occasioned 23 deaths, or nearly a fifth (18·3 %) of those from all causes, being at the rate of 2·6 per 1·000. Of this considerable mortality but a small proportion can be accounted for by deaths which in some districts swell the returns appreciably, viz., those of prematurely born children, &c., who survive but a few days or weeks, and this, with the fact that about 40 % of the total deaths occurred between the ages of 5 and 60 years, are perhaps the most unsatisfactory points to be noticed in the sanitary history of the year.

Of the 37 persons who died above 60 years of age, 13 were between 70 and 80, 10 between 80 and 90, and 4 were on the way to complete their tenth decade. It will be seen (Table V) that these formed 30·1 % of the mortality at all ages, a percentage identical with that occurring under five years of age, and also the lowest proportionate ratio shown by any district in the combination for the year under review.

Seven inquests were held—three of the deaths were found to be due to “natural causes” and the others to “accidental injury or drowning.”

## EASTHAMPSTEAD RURAL SANITARY DISTRICT.

Inspectors of Nuisances, Mr. G. Slarke and Mr. J. Burgess.

IN consequence of the retirement of Mr. Slarke from his office as inspector of nuisances (in which position I have always found him painstaking, efficient, and trustworthy), his successor, Mr. Burgess, commenced his duties towards the close of the year, and the inspectors' return (Table III) therefore includes a few weeks' work done by him as well as by his predecessor,



The premises dealt with were 509 in number, of which 433 were inspected in detail. Ordinary nuisances were found on 186, all of which have been abated, and nearly a fourth of them voluntarily and without the necessity for a formal notice so to do. About half related to foul closets and bad drains, the other chief items being animals kept improperly, foul ditches, and bad water supply. Earth closets have been adopted on 34 premises, and services from the mains of the Wokingham Water Company were laid on to 27 houses at Bullbrook and Binfield-road.

My attention having been called to the sanitary condition of a group of cottages at Bullbrook on account of illness occurring there, and a letter sent by the district medical officer on the subject, I visited the premises and advised as to what was necessary to remedy the immediate complaint; but it has been necessary of late years to bring all this locality under the notice of the Authority on several occasions, both as regards faulty drainage arrangements, impure water supply, and from time to time scarlet fever and diphtheria outbreaks.

As regards the water question a great improvement has been effected by the laying on of services from the mains of the Wokingham Company to a large number of the houses, but in my opinion there is a clear and growing necessity (which is likely to increase year by year on account of the multiplication of new buildings) for carrying out a proper scheme of sewerage for this part of the district, as Bullbrook and Bracknell are now becoming a considerable community, and the majority of the houses do not possess a sufficient area of garden ground to dispose of their sewage thereon without risk to health.

Complaint has also been made of nuisances arising from bad drainage at a butcher's premises in Winkfield, and to the discharge of drainage from the Royal Kennels at Ascot (in the Windsor rural district) into the neighbouring stream—the first-named was remedied and I called the Windsor inspector's attention to the latter.

Certain alterations and extensions having been made at the Union House at East Hampstead I was requested to inspect the same and report to the Guardians (for the information of the Local Government Board) as to the sanitary sufficiency and completeness of the works carried out. I was able to state that what had been done was of a very satisfactory character and an undoubted improvement.

The matter of the water supply of a large part of the extensive parish of Winkfield, to which reference has been made in the reports for previous years, has again been brought under consideration; and early in November a Local Government Board enquiry was held by Mr. Codrington, one of the Board's Inspectors, in which the whole matter was gone into, and I gave evidence as to the scarcity of reliable drinking water in that part of the sanitary district, and of the almost impossibility of getting a wholesome and sufficient supply by ordinary well sinking—showing, by the results of analyses made by me in the preceding five years of water samples taken in all the most inhabited places in the parish, that their general average character was bad, and also that from time to time outbreaks of zymotic disease had occurred within the area which (though not generally of an extensive or very serious character) might reasonably be associated with the use of such water.

The number of new cases of pauper sickness contained in the weekly returns made to me was 430 in all, 56 being children under five years of age, and there were 43 attacks of zymotic complaints—chiefly diarrhoea and whooping cough, with a few of measles and scarlet fever. Of the other diseases included in this class, and amongst non-paupers, only occasional and sporadic cases have come to my knowledge, which either have not spread at all or only to an extremely limited extent, and have been attended with but little mortality.

In the reports for some other districts in the combination I have had to refer to isolated attacks of small pox occurring therein about the end of March, the patients being exclusively

persons recently discharged from the female wards of the Reading Hospital, which unfortunately had become infected by an inmate who was under treatment for another complaint—but who was in an infectious state from an extremely mild and slight attack of this disease. It was in the third week in March that the first case that occurred in any district included in the combination was reported at a road-side inn on the road from Winkfield to Windsor. The girl had left the hospital very nearly a fortnight previously, and had been staying with relatives where she infected her sister before the rash appeared on herself; she then returned home; both attacks were of very moderate severity, and the house being immediately closed for business, the inmates were strictly quarantined, and other necessary precautions thoroughly carried out. When the cases were at an end the premises were reopened after thorough cleansing and disinfection, without the slightest spread of infection beyond the two original ones. Two other, but entirely distinct, attacks came to my knowledge in another part of the district—also originating in the same way; one was that of a lady who only visited the hospital once or twice (and that was prior to there being any suspicion of the presence of infection there), to see one of the women patients who was suffering from a disease of long standing, and who was an inmate of a different ward from that in which the girl previously referred to had been. The remaining case was the daughter of this person, and her exposure to infection was also limited to two precisely similar visits to the hospital (and on the same days) to see her mother.

The strictest precautions were observed in both these cases, and as regards the last named a trained nurse was provided by the Sanitary Authority. There was no subsequent attack at either house—or, to my knowledge, in the district.

Scarlet fever has been three times reported, and one attack proved fatal to a child living at Bullbrook. There was no traceable connection between either of the cases, and careful precautions were taken to stop infection from spreading.



Diphtheritic attacks have twice come to my knowledge; one of them proved fatal after a short illness to a child living at Winkfield. In this case it was subsequently ascertained that there was a leakage from the sink drain into one of the two tanks which supplied drinking water for the use of the family. In the other case the children lived in Lovel-road in the same parish, a rather low and damp locality.

Croup has proved the most fatal of the diseases of this class, and six deaths (four of them in Winkfield parish) were referred to it in the spring and autumn quarters when the soil is most saturated with moisture and the water more charged with decaying vegetable matter, &c., than at other seasons of the year.

Whooping cough accounts for three deaths, but there was not any serious outbreak of the complaint.

Typhoid fever has only been once reported, in a gardener's cottage attached to a large house at Ascot; there were two attacks (father and daughter). The man's illness, which proved fatal at the end of a month, commenced shortly after he had been engaged in emptying a large cesspit on the premises where he was employed. The usual precautions were observed and there was not any spread of the disease.

Towards the close of the year—in consequence of the death of the bursar and one of the scholars of Wellington College, after short illnesses, which as regards the first was attributed to blood poisoning—I, with the sanction of the College Authorities, made a careful examination (in company with Mr. Armstrong the medical officer) of the sanitary arrangements adopted there, and having also been furnished with certified copies of every death that has occurred on the premises since they were opened, I forwarded a report on the whole matter to the Vice-Principal—the chief points in which may be recapitulated here. I found myself able to express general satisfaction with the new system of main drainage and of sewage disposal adopted, which had recently been carried out at considerable outlay by Mr. Baldwin Latham. The arrangement of the house drains I also found to

be satisfactory on the whole, but as regards a few of them, both in college and in one or two of the masters' residences, as also with reference to the ventilation and flushing of the sewers, I pointed out certain matters of detail in which I considered some alterations might be advantageously made. I also found, on analysing the death returns, that in the first 11 years of the school's existence none had occurred amongst the boys, while in the second period, including 15 years, there had been seven, of which two only had been referred to blood poisoning or diseases implying faulty sanitation, and one of these two had resulted from accidental injury. On fuller enquiry it was ascertained that as regards the two recent deaths, that of the scholar was from causes without sanitary significance, and the bursar's was the result of erysipelas and blood poisoning following exposure to sewer air while engaged in a detailed inspection of the main sewer with the college medical officer, he being at the time in weak health and in a condition peculiarly liable to suffer from such exposure. This death appears to have been the only one which has yet occurred among the members of the staff that could be at all associated with the sanitary arrangements in use, and by the adoption of the alterations in ventilation and flushing suggested by me I consider that every practicable precaution will have been taken to safeguard the health of the residents. It should be added that, healthy as all Sandhurst parish undoubtedly is, and low as is its death rate, the mean death rate among the college boys (while in residence) ever since the school opened, proved on analysis to be very distinctly lower than that of the outside population at the same ages for equivalent portions of the year.

The births registered during the year were 389 (M. 206, F. 183) and the deaths 172, from which last 18 must be deducted as having occurred amongst the inmates of Broadmoor Lunatic Asylum and not belonging to the district, as also one of the nine deaths in the Union house for the same reason. An addition of four must however be made for persons belonging

to the district but dying outside it; the corrected total is therefore 157 (M. 82, F. 75), which is equal to a death rate of 12·2 per 1,000 of the estimated population (or 4·1 below the mean rate for the sanitary combination), the birth rate being 30·2, or ·8 under the corresponding mean rate; and the percentage proportion of deaths at all ages to registered births was the very low one of 40·4 %.

The deaths from zymotic diseases (which, with a single exception, were exclusively of infants or of children under five years old) have already been specified. They were 13 in all, and at the rate of 1·1 per 1,000, or 8·9 % of those from all causes.

The same amount of mortality was due to consumption, but nearly all these deaths occurred between the ages of 20 and 50.

Lung inflammations were a little more fatal and occasioned 15 deaths, while the wasting and convulsive diseases of children accounted for 25 (see Tables IV B and VI), or at the rate of 1·9 per 1,000 and a percentage proportion of nearly 16 % of those from all causes, and 6·9 % of the total births—this last being by much the lowest proportionate rate of any district in the combination—see Table V. It may be added that about 10 of these last named deaths were those of infants prematurely born and surviving but a few weeks or even days, and the proportion borne by the total deaths under five years of age to those at all ages was only 20 %—the lowest rate for the year in any of the districts, and nearly 10 % below the mean rate of the whole.

One-third of the total mortality occurred amongst persons above 60. Of these one had attained the age of 95, 18 were between 80 and 90 years old, and 22 between 70 and 80.

Ten inquests were held in addition to those always held on the deaths of inmates of Broadmoor Asylum. Of these 10 deaths half were due to “accidental injury, drowning, and poisoning,” and the remainder to “natural causes.”



## WINDSOR RURAL SANITARY DISTRICT.

Inspector of Nuisances, Mr. P. J. Byrne.

THE return of the inspector for this district shows 606 premises visited during last year, of which 200 were inspected in detail. Nuisances were found on 298 (150 of them being reported to the Authority), and those on 237 of the number have been abated, formal notices having been necessary in 70 cases—(see Table III). Foul closets and bad drainage existed on 110, and 45 dilapidated, dirty, or overcrowded houses have been dealt with, of which four were closed as unfit for habitation. About 100 cases of deficient and 40 of impure water supply have been more or less effectively remedied, 30 new wells having been sunk, 22 cleaned out, and the same number of premises having been otherwise supplied.

One hundred and twenty new buildings have been erected under the supervision of the inspector and in accordance with the bye-laws, and 12 have been furnished with earth closets.

The condition of Alexandra Cottages, Clewer, which in previous years have several times been reported by me as barely habitable, have again had attention in consequence of the outbreak of scarlet fever there, and after revisiting them with Mr. Byrne I reported them as unfit for habitation. As the result of this they have again been patched up, and after reinspection I found that enough had been done to render a conviction improbable, even if proceedings were taken to obtain an order to close them, as they had been roughly whitewashed, cleansed, repaired, and refloored; rainwater guttering had been put up, and some improvement made in ventilation. As regards one of the number, a little additional work had been done to make it more habitable, but structurally they are all a very wretched class of tenement, and at their best hardly fit for occupation. I am informed that the existing leases are nearly expired, and it is greatly to be hoped that when that event happens they may

be entirely pulled down and make room for the erection of labourers' dwellings of a better and healthier character.

At Sunninghill Bog, Ascot, I also inspected a considerable number of cottages of a very poor character, with Mr. Byrne, by whom their condition had been reported after he had made a house to house visitation of the locality, as being dilapidated and very deficient in sanitary requirements. On inspection I found some of the cottages structurally dangerous and almost ruinous in parts, damp, ill ventilated, without guttering or downfall pipes, with rotten flooring and woodwork, being also without proper closet accommodation, drainage, or water supply other than that obtained from dip holes in the bog. These premises I reported as being unfit for habitation; four of them have since been demolished and the others repaired, closets provided, pigsties removed, and other nuisances abated.

I have also found it necessary to report as unfit for habitation some of the cottages in Sweeps-lane, Egham, where diphtheria had appeared, and one case proved fatal. Here also some of the floors and ceilings were rotten, the walls and roof unsafe, and the latter leaky; the whole being dirty and dilapidated, as were also the common privies attached to the premises.

Complaint having been made of an offensive nuisance arising from the discharge of sewage into an open watercourse which crosses the park at Clewer Manor, I inspected with Mr. Byrne all the premises communicating therewith and found that, although as regards a certain proportion of them the "closet" filth was dealt with on the premises, and attempts were made in some degree to clarify the "slop" sewage before it passed into the drains, from others, cesspit overflows and foul sewage entered them, and that the outcome was a serious "filth" nuisance. I reported fully on the whole matter to the Authority, pointing out that in the entire absence of any proper and effective sewerage for the locality in question, and also taking into consideration the very limited area of ground which was available (as regards many of the cottages) for getting rid of the

sewage on the land, it was most desirable that measures should be adopted for the purpose of meeting the necessities of the case. In the mean time notices were served on the respective owners to cut off their drainage, and some of the number complied. Later in the year proceedings were taken against six persons who failed so to do, and orders were made by the Bench in three cases, the others being adjourned.

Complaint has also been made as to the sewage effluent from the Asylum at Virginia Water erected by the late Mr. Holloway which passed into the watercourse. Alterations were contemplated which would do away with all cause of offence, but they had not been carried out at the close of the year. The same remarks apply to the discharge of sewage from the Royal Kennels at Ascot into the adjacent stream, to which I have alluded in the report on Easthampstead district where the complaint arose.

The matter of the water supply of the parish of Egham, to which in previous years I have at different times called attention, has again been under consideration, and as by the opening of the works of the South Western and Suburban Water Company, whose mains run in the district, there appeared to be a practicable way of meeting the requirements of the case, a resolution was come to by the Sanitary Authority to deal with the question, and by their instructions a detailed and almost house to house inspection was made by Mr. Byrne, who forwarded to me for analysis samples of drinking waters from such wells as appeared necessary. The work having been commenced somewhat late in the year was still in progress at its close, but nine samples were examined by me, none of which were good, the best yielding about twice the amount of organic ammonia obtainable from average London water, and giving even proportionately worse results in other respects; while fully half the number were from four to six times as impure, tried by the same standard. Three of these Egham samples were taken in connection with diphtheritic attacks occurring in connection with



their use. I also examined a sample of very indifferent character taken from a house at Clewer where attacks of throat mischief had been reported, as well as one taken direct from the mains of the water company at Egham already alluded to, which I found to be very free from organic impurity.

One hundred and eleven "new cases" of pauper sickness have been reported, of which 12 were of children under five years old, and there were 24 zymotic attacks, principally of measles and scarlet fever. Rather over 70 notifications of infectious illnesses were received from some of the medical practitioners of the district (under the arrangement by which a moderate fee is paid by the Authority for notification) whose co-operation in this matter is of great use in promptly directing the attention of the sanitary officers to the places in which these outbreaks commence.

Of these certificates 23 related to measles occurring mainly in the last three months of the year, 29 to scarlet fever—the cases being scattered over the twelvemonth, five to diphtheria in June and July, one to typhoid fever, and 13 to erysipelas.

Only one attack of small pox has come to my knowledge, the case being that of a child, and the channel of infection not ascertainable. Some difficulties arose in the carrying out of proper isolation during the latter part of the case but there was no spread.

No attack of measles was reported until the last quarter of the year, when it appeared in Clewer, and continued till its close, causing two deaths of infants.

Scarlet fever made its appearance in Egham and its vicinity at the beginning of the year, resulting in two deaths; and cases continued to crop up from time to time, till about Midsummer, in the dampest localities and the most insanitary houses. In the second half year it appeared chiefly in different parts of Clewer parish, causing there one death; but occasional attacks, happily non-fatal, were reported in Egham also during the autumn.

Diphtheria has broken out from time to time in the second and fourth quarter, occasionally concurrently with the preceding complaint; and it especially affected Egham and its vicinity, where indeed it occurs in most years when it appears at all in the district. The disease accounts for 11 deaths, occurring mainly in this parish, and the mortality due to it was nearly one-third of the total resulting from zymotic complaints throughout the year; an equal proportion being due to diarrhœa, mostly infantile. I find in my notes of these cases that in four of the number the water proved to be on analysis exceedingly polluted and unfit for use, and the attacks occurred for the most part in localities where the subsoil water is near the surface; and as also with scarlet fever, where the general sanitary conditions were defective.

Four fatal attacks of enteric fever have occurred, and but few others have been reported; one was at Old Windsor and the other three in different parts of Egham. Of these last one occurred at a house which was Crown property, and although its sanitary arrangements were found on inspection to be in fair order, analysis of the drinking water gave very unsatisfactory results and I found it necessary to condemn the well. With a single exception all the fatal cases occurred in the fourth quarter.

Three deaths were due to whooping cough and 11 to diarrhœa, of which all but two were of infants and children under five years old.

The births registered during the year numbered 639 (M. 325, F. 314), and the total deaths 322; but from these it is necessary to deduct 12 of the 28 occurring in the Union House, and 12 from the 14 in St. Andrew's Hospital, as being of persons not belonging to the district, but for the most part, as regards the workhouse—former residents in the borough of Windsor, and at the hospital—persons sent from London or elsewhere for treatment. And an addition of one death must be made for a resident dying in the Reading Hospital. The correct number

is therefore 299 (M. 158, F. 141—see Tables IV and IV B), which, taking the population at the middle of the year as 20,937, gives the low death rate of 14·3 per 1,000, and a birth rate of 30·5; being, as regards the deaths, 2·0 per 1,000 under the mean rate for the combined sanitary districts—see Table V.

The proportion of corrected deaths to births registered is also considerably less (six per centum) than the “mean rate,” being only 46·8 %. On the other hand the proportion of infantile mortality to that occurring at all ages was somewhat high, though if we include with it the deaths between one and five years they amount to 29·7 % of the whole—which is the exact “mean rate” for all districts.

I have already named all the deaths resulting from zymotic diseases. They amounted to 12 % of those from all causes and were at the rate of 1·7 per 1,000.

Consumption accounted for 32 deaths in all, of which 29 belong to the district. This disease has justified its character as the scourge of youth and of early middle age, all but five of its victims being between the ages of 15 and 45, and half of them between 30 and 45. It accounted for nearly 10 % of the total mortality, and was at the rate of 1·4 per 1,000 of the population.

Lung inflammations caused a gross mortality of 54, the corrected number being 52—20 were children under five. The majority of these deaths occurred in the first three and the last four months of the year. The death rate of 2·5 per 1,000 is a little above the mean for the combination, and these affections account for 17·4 % of the total mortality.

Forty deaths were due to the wasting and convulsive diseases of children under five. These were a little below the average of the combination (Table VI) being at the rate of 1·9 per 1,000, and forming 13·4 % of those from all causes. It should be noted that half the number were infants born prematurely, or of such feeble vitality that they succumbed after at most a few weeks of life.



In this district it will be seen (Table V) that while the percentage proportion to total deaths of those occurring amongst children under five years of age is identical with the mean rate for all districts, that for deaths above 60 is nearly five per centum under the corresponding average, and consequently the proportionate mortality between the ages of 5 and 60 is by so much the greater. This fact does not necessarily imply (as might at first be supposed) a generally unfavourable condition of the district as respects persons at these periods of life. The probable explanation of the facts being that the district (no insignificant part of which is "suburban" in character) contains a rather larger percentage of persons at the active and working periods of life than is found in the more strictly rural districts; and this is especially the case in the neighbourhood of Egham, where a large number of workmen have been employed of late years in the construction of the large institutions built by the liberality of the late Mr. Holloway.

Of the 96 persons dying above 60 years of age, nearly 20 had passed their eightieth, and two their ninetieth birthday, while over 40 were between 70 and 80 years old.

Fourteen inquests were held, of which six were on deaths due to "accidental injuries or drowning" and two to "suicide"; the remainder resulting from "natural causes."

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TABLES  
OF  
STATISTICS,  
1884.

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## ERRATA.

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TABLE III.—Abingdon Urban Sanitary District.  
No. 17. Premises disinfected after infectious illnesses.  
for 13 read 47.

### TABLE IV A.—

	Census 1881.	Pop. 1884.
Cookham Rural ...	for 8,219 read 8,715	for 8,876 read 8,719
Maidenhead Urban ...	for 8,715 read 8,219	for 8,719 read 8,876

TABLE VI.—Wallingford Urban Sanitary District.  
Chief zymotic diseases, for 1·5 read 1·2.



# BERKSHIRE COMBINED SANITARY DISTRICTS. 1884.

## TABLE I.

† In the columns marked thus (†) the deaths in the Public Lunatic Asylums and in Union Houses are distributed in the respective Districts according to previous residence ; those of persons not belonging to any of them being altogether excluded from calculation.

SANITARY DISTRICTS.	Inhabited Houses. Census 1881.	Corrected Popula- tion of Sanitary Districts estimated to middle of 1884 ‡	Births Registered 1884.	Corrected Deaths, 1884. ‡	Corrected Death Rate per 1,000 living.											
					1874. ‡	1875. ‡	1876. ‡	1877. ‡	1878. ‡	1879. ‡	1880. ‡	1881. ‡	1882. ‡	1883. ‡	1884. ‡	
NEWBURY Rural ... ..	2,516	11,262	316	171	19·7	24·2	16·7	19·6	19·7	16·5	16·8	16·5	17·4	16·1	15·2	
„ Urban ... ..	2,176	10,285	355	172	18·8	19·0	18·2	19·4	22·1	18·3	20·6	17·0	17·9	19·5	16·7	
HUNGERFORD Rural ... ..	4,054	17,291	536	329	15·4	19·2	16·1	16·5	17·7	17·6	16·6	16·0	17·0	18·3	19·0	
ABINGDON Rural ... ..	2,884	13,533	412	245	17·9	19·9	16·7	17·2	18·3	18·8	16·6	16·2	16·1	16·4	18·1	
„ Urban ... ..	1,455	5,698	172	117	21·2	22·2	21·4	23·2	22·1	22·1	17·8	15·4	16·4	17·5	20·5	
WALLINGFORD Rural ... ..	2,467	11,280	339	204	17·8	19·5	16·0	15·8	17·0	20·6	18·4	14·7	15·5	16·6	18·1	
„ Urban ... ..	560	2,624	82	57	18·7	20·6	16·5	16·0	22·3	21·4	17·2	15·7	24·9	13·7	21·7	
BRADFIELD Rural ... ..	3,608	18,547	605	282	16·5	17·8	15·7	16·3	15·8	18·0	17·8	15·2	13·8	18·1	15·2	
COOKHAM Rural ... ..	1,848	8,803	269	159	16·2	18·9	15·1	16·2	17·3	18·1	15·1	12·2	14·9	14·1	18·1	
MAIDENHEAD Urban ... ..	1,549	8,802	287	123	12·7	20·8	14·8	17·2	15·5	17·5	14·0	12·7	19·3	17·0	13·2	
EASTHAMPSTEAD Rural ... ..	2,255	12,895	389	157	11·1	14·9	10·6	12·7	14·3	13·3	14·7	12·8	15·5	14·4	12·2	
WINDSOR Rural ... ..	3,675	20,937	639	299	14·5	18·0	18·8	16·1	17·5	14·8	17·2	14·3	14·8	16·3	14·3	
(Combined Districts.) TOTAL...	29,047	141,957	4,401	2,315	Mean Rates 17·2	19·6	16·3	16·7	17·7	17·5	16·9	14·9	16·0	16·8	16·3	



# BERKSHIRE COMBINED SANITARY DISTRICTS. 1884.

## TABLE II.

Return of Pauper Sickness in Sanitary Districts for the year ending December 31st, 1884.

NAMES OF SANITARY DISTRICTS.			NEW CASES OF SICKNESS, IN PERSONS BELONGING TO THE DISTRICT, DISTINGUISHING THOSE IN CHILDREN UNDER FIVE YEARS OF AGE.																						
				Small Pox.	Measles.	Scarlatina.	Diphtheria.	Croup (not spasmodic).	Whooping Cough.	Contind Fevers.			Diarrhoea and Dysentery.	Cholera.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	Ague.	Chicken Pox.	Cancer.	Phthisis.	Bronchitis, Pneumonia and Pleurisy.	TOTAL. All Diseases.	
										Typhus.	Enteric or Typhoid.	Other or Doubtful.													
NEWBURY Rural Sanitary District	...	...	{	Under 5	...	...	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	9	72
				5 upwds.	...	...	1	3	...	...	...	...	...	2	...	...	...	...	...	...	...	1	4	63	
NEWBURY Urban Sanitary District	...	...	{	Under 5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11	34
				5 upwds.	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	1	23	
HUNGERFORD Rural Sanitary District	...	{	Under 5	...	...	...	...	1	12	...	...	...	9	...	...	...	...	...	...	...	...	...	7	123	847
			5 upwds.	1	...	4	...	...	6	...	...	2	55	...	...	3	...	1	...	...	4	12	49	724	
ABINGDON Rural Sanitary District	...	...	{	Under 5	...	36	8	...	...	2	...	...	10	...	...	...	...	...	...	...	...	...	20	128	544
			5 upwds	4	32	20	1	...	...	...	...	...	19	...	2	4	...	...	...	...	...	4	24	416	
ABINGDON Urban Sanitary District	...	...	{	Under 5	...	15	4	...	1	1	...	...	4	...	...	...	...	...	...	...	...	...	2	54	138
			5 upwds.	...	5	11	...	...	...	...	...	...	3	...	1	1	...	...	...	...	...	1	6	84	
WALLINGFORD Rural Sanitary District	...	{	Under 5	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11	84
			5 upwds	...	2	...	...	...	...	...	...	...	5	...	...	2	...	...	...	...	...	...	1	73	
WALLINGFORD Urban Sanitary District	...	{	Under 5	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	18
			5 upwds	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	12	
BRADFIELD Rural Sanitary District	...	...	{	Under 5	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	24
			5 upwds.	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	4	22	
COOKHAM Rural Sanitary District	...	...	{	Under 5	...	41	1	...	...	...	...	...	2	...	...	1	...	...	...	...	...	...	3	93	472
			5 upwds.	...	25	2	...	...	...	...	1	...	11	...	...	3	...	...	...	...	...	1	6	379	
MAIDENHEAD Urban Sanitary District	...	{	Under 5	...	10	1	...	...	4	...	...	...	8	...	...	...	...	...	...	...	...	...	7	82	384
			5 upwds.	...	2	...	...	...	...	...	...	...	14	...	...	1	...	...	...	...	...	10	7	302	
EASTHAMSTEAD Rural Sanitary District	...	{	Under 5	...	1	1	...	...	6	...	...	...	5	...	...	...	...	...	...	...	...	...	4	56	430
			5 upwds.	...	4	2	1	1	9	...	...	...	13	...	...	3	...	...	...	...	...	4	24	374	
WINDSOR Rural Sanitary District	...	...	{	Under 5	...	4	1	...	...	2	...	...	1	...	...	...	...	...	...	...	...	...	4	12	111
			5 upwds.	...	4	6	1	...	1	...	2	...	2	...	1	1	...	...	...	...	...	5	18	99	
TOTALS			{	Under 5	...	113	23	...	2	27	...	...	39	...	...	1	...	...	...	...	...	...	51	587	
				5 upwds	5	75	48	6	1	16	...	3	2	125	...	4	18	...	1	...	...	4	41	145	
				At all ages	5	188	71	6	3	43	...	3	2	164	...	4	19	...	1	...	...	4	41	196	3158



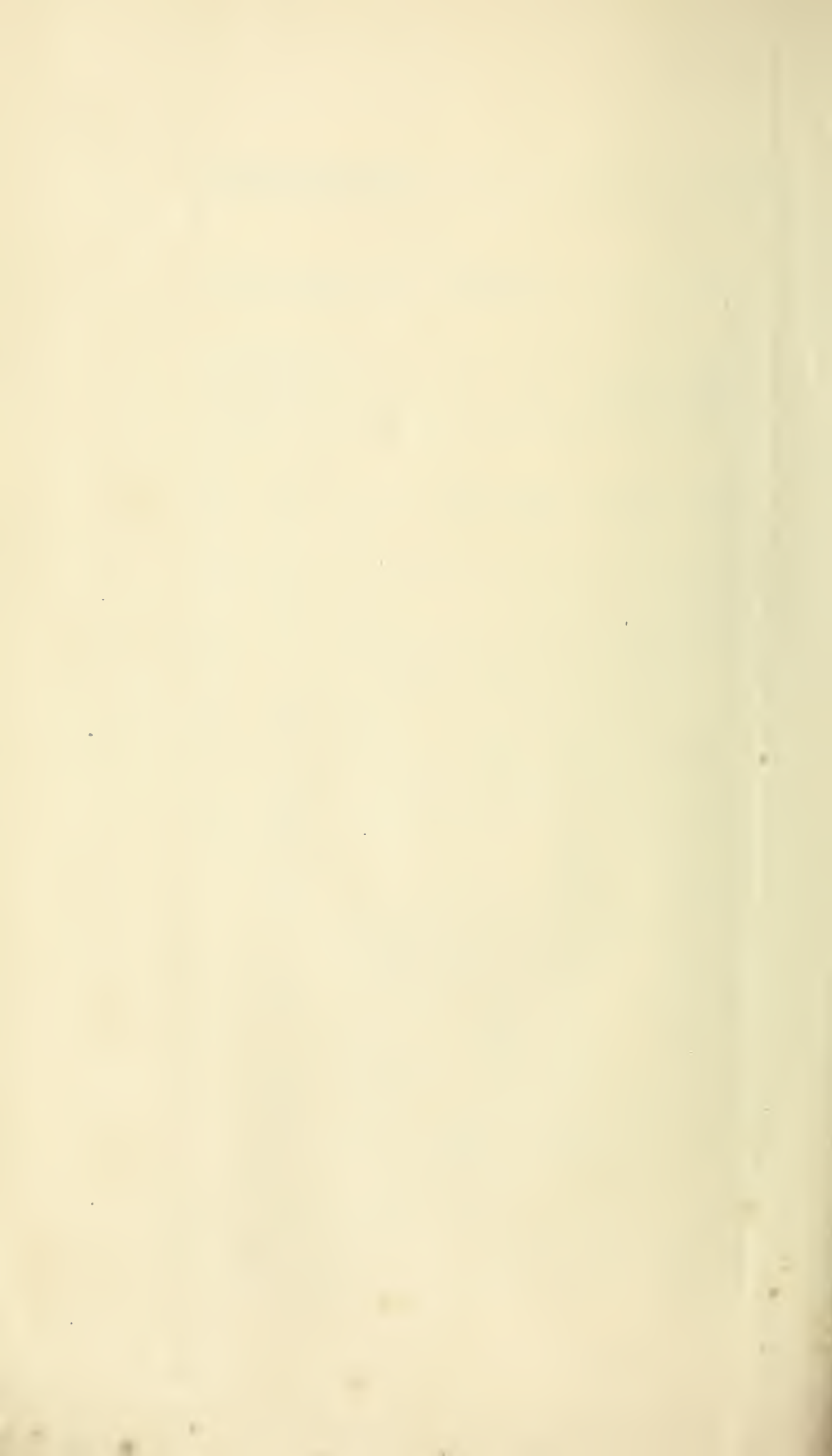


BERKSHIRE COMBINED SANITARY DISTRICTS. 1884.

TABLE III.

Return, by Inspectors of Nuisances, of Sanitary Works carried out in the Year 1884.

[illegible]





BERKSHIRE COMBINED SANITARY DISTRICTS. 1884.

TABLE IV.

TABLE OF DEATHS registered during the Year 1884, in the Combined Rural and Urban Sanitary Districts of Berkshire, classified according to Diseases, Ages, and Localities, and showing also the Population of such Localities, and the Births therein during the Year.

NAMES OF SANITARY DISTRICTS.			Area in Acres.	TOTAL POPULATION AT ALL AGES.		Registered Births.	TOTAL REGISTERED MORTALITY FROM ALL CAUSES, AT SUBJOINED AGES.						MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE.																									
				Census 1881.	Estimated to middle of 1884.		At all ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwards.	12	Small Pox.	Measles.	Scarlatina.	Diphtheria.	Group (not spasmodic).	Whooping Cough.	Contind Fevers.			Diarrhoea and Dysentery.	Cholera.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	Ague.	Cancer.	Phthisis.	Bronchitis, Pneumonia & Pleurisy.	Heart Disease.	Injuries.	*(Under 5 years)		All other Diseases.
																					Typhus.	Enteric or Typhoid.	Other or doubtful.													Wasting Diseases.	Convulsive Diseases.	
(No. of Column)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28 <sup>A</sup>	28 <sup>B</sup>	29	30	31	32 <sup>A</sup>	32 <sup>B</sup>	32 <sup>C</sup>	33		
NEWBURY RURAL ...	40554	11183	11138	M. 177 Tot. 316	F. 139 159	33	21	9	7	35	54	Under 5 5 upwds.	...	...	1	2	1	3	...	1	...	3	...	...	...	...	...	...	...	...	...	...	9	...	1	16	15	2
NEWBURY URBAN ...	2402	10143	10409	182 Tot. 355	173 179	38	19	7	7	44	64	Under 5 5 upwds.	...	...	2	5	5	...	...	1	3	...	...	...	...	...	...	...	...	...	...	...	7	...	21	10	3	
HUNGERFORD RURAL ...	98287	17795	17291	248 Tot. 536	288 324	55	24	21	16	55	153	Under 5 5 upwds.	...	...	1	1	...	2	2	...	...	4	...	1	3	...	...	...	...	...	...	2	4	...	1	38	14	6
ABINGDON RURAL ...	54815	13621	13606	202 Tot. 412	210 247	51	34	20	10	45	87	Under 5 5 upwds.	...	...	9	8	2	...	1	...	1	...	2	...	...	...	...	...	...	...	...	...	15	...	...	25	11	11
ABINGDON URBAN ...	345	5676	5637	81 Tot. 172	91 113	16	23	11	5	26	32	Under 5 5 upwds.	...	...	6	12	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	2	5	...	...	5	4	1
WALLINGFORD RURAL ...	40456	11690	11582	164 Tot. 339	175 235	36	22	16	10	64	87	Under 5 5 upwds.	...	...	3	...	...	3	...	...	...	7	...	...	1	...	...	...	...	...	...	...	9	...	2	16	9	8
WALLINGFORD URBAN ...	404	2803	2748	32 Tot. 82	50 76	12	7	1	2	13	41	Under 5 5 upwds.	...	...	3	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	2	5	5	
BRADFIELD RURAL ...	62166	17972	18547	303 Tot. 605	302 274	55	25	10	7	61	116	Under 5 5 upwds.	...	...	1	...	1	...	...	...	...	6	...	...	...	...	...	...	...	...	...	14	...	1	22	21	5	
COOKHAM RURAL ...	26932	8219	8719	141 Tot. 269	128 138	21	20	9	5	28	55	Under 5 5 upwds.	...	...	4	1	1	...	3	...	...	5	...	...	...	...	...	...	...	...	...	8	...	...	6	6	7	
MAIDENHEAD URBAN ...	2560	8715	8876	153 Tot. 287	134 137	27	9	7	11	37	46	Under 5 5 upwds.	...	...	1	...	1	1	2	...	...	2	...	...	...	...	...	...	...	...	...	6	1	...	15	7	...	
EASTHAMPSTEAD RURAL .	25176	12664	13330	206 Tot. 389	183 172	27	20	9	2	57	57	Under 5 5 upwds.	...	...	...	1	...	...	...	...	1	...	1	...	...	...	1	...	...	...	...	1	6	...	...	16	9	4
WINDSOR RURAL ...	20152	19517	21021	325 Tot. 639	314 322	66	23	19	13	96	105	Under 5 5 upwds.	...	...	2	2	4	...	3	...	...	9	...	...	...	...	...	...	...	...	...	20	...	...	24	16	9	
TOTAL ...	377373	139998	142904	2214 4401	2187 2376	437	247	139	95	561	897	Under 5 5 upwds.	...	...	30	28	15	17	29	...	2	146	...	1	3	1	...	...	...	...	5	106	1	5	206	127	62	

\* Columns 32B and 32C.—“Wasting Diseases” (under 5 years) include:—Scrofula, Rickets, Tabes, Marasmus, Debility, Want of Breast Milk, Premature Birth and Malformations.  
“Convulsive Diseases” include:—Hydrocephalus, Infantile Meningitis, Convulsions, Laryngismus, and Teething.





# BERKSHIRE COMBINED SANITARY DISTRICTS. 1884.

TABLE IV. "B"

TABLE OF "CORRECTED" DEATHS occurring during the Year 1884, in the Combined Rural and Urban Sanitary Districts of Berkshire, classified according to Diseases, Ages, and Localities, showing also the estimated "corrected" Population of such Localities, and the Deaths in Public Institutions therein.

NAMES OF  SANITARY DISTRICTS.	"Corrected" Population all ages Estimated to middle of 1884.	Deaths outside district of persons belonging thereto.	Deaths within district of persons not belonging thereto.	DEATHS OCCURRING IN						TOTAL "CORRECTED" MORTALITY FROM ALL CAUSES, AT SUBJOINED AGES.							MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE.																											
				Union Houses.		H'pitals.		Lunatic Asylums		At all ages.	Under 1 year.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 60.	60 and upwards.	12	Small Pox.	Measles.	Scarlatina.	Diphtheria.	Croup (not spasmodic).	Whooping Cough.	Contind Fever.		Typhus.	Enteric or Typhoid.	Other or doubtful.	Diarrhoea and Dysentery.	Cholera.	Rheumatic Fever.	Erysipelas.	Pyæmia.	Puerperal Fever.	Ague.	Cancer.	Phthisis.	Bronchitis, Pneumonia & Pleurisy.	Heart Disease.	Injuries.	*(Under 5 years)		All other Diseases.	
				TOTAL.	Persons not belonging to District.	TOTAL.	Persons not belonging to District.	TOTAL.	Persons not belonging to District.															Typhus.	Enteric or Typhoid.																Other or doubtful.	Wasting Diseases.		Convulsive Diseases.
(No. of Column)	1	2	3	4	A	B	C	D	E	F	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28 <sub>A</sub>	28 <sub>B</sub>	29	30	31	32 <sub>A</sub>	32 <sub>B</sub>	32 <sub>C</sub>	33		
NEWBURY RURAL ...	11262	12	...	...	...	...	...	...	...	...	M. 93 F. 78 Tot. 171	33	21	9	7	38	63	Under 5 5 upwds.	...	...	1	2	1	3	...	1	...	3	...	...	...	...	...	...	...	...	...	...	9	...	1	16	15	2
NEWBURY URBAN ...	10285	3	10	26	10	...	...	...	...	...	107 65 Tot. 172	38	19	7	7	42	59	Under 5 5 upwds.	...	...	2	5	5	...	...	1	3	...	...	...	...	...	...	...	...	...	...	7	...	...	21	10	3	
HUNGERFORD RURAL ...	17291	5	...	16	...	...	...	...	...	...	154 175 Tot. 329	56	24	21	16	58	154	Under 5 5 upwds.	...	1	1	...	2	2	...	...	4	...	1	3	...	...	...	...	...	...	2	4	...	1	38	14	7	
ABINGDON RURAL ...	13533	2	...	18	4	...	...	...	...	...	140 105 Tot. 245	51	34	20	10	45	85	Under 5 5 upwds.	...	9	8	2	...	1	...	1	...	2	...	...	...	...	...	...	...	...	...	15	...	...	25	11	11	
ABINGDON URBAN ...	5698	4	...	...	...	...	...	...	...	...	61 56 Tot. 117	16	23	11	5	26	36	Under 5 5 upwds.	...	6	12	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	2	5	...	...	5	4	1	
WALLINGFORD RURAL ...	11280	21	52	...	...	...	...	54	52	...	107 97 Tot. 204	36	22	17	8	40	81	Under 5 5 upwds.	...	3	...	...	3	...	...	...	7	...	...	1	...	...	...	...	...	...	9	...	2	16	9	8		
WALLINGFORD URBAN ...	2624	3	22	25	21	2	1	...	...	...	27 30 Tot. 57	12	7	1	2	13	22	Under 5 5 upwds.	...	3	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	2	5	5	
BRADFIELD RURAL ...	18547	8	...	21	...	...	...	...	...	...	151 131 Tot. 282	55	27	11	8	64	117	Under 5 5 upwds.	...	1	...	...	1	9	...	...	6	...	...	...	...	...	...	...	...	...	14	...	2	22	21	6		
COOKHAM RURAL ...	8803	21	...	...	...	...	...	...	...	...	92 67 Tot. 159	21	20	9	9	34	66	Under 5 5 upwds.	...	4	1	1	...	3	...	...	5	...	...	...	...	...	...	...	...	...	...	8	...	...	6	6	7	
MAIDENHEAD URBAN ...	8802	5	19	29	17	3	2	...	...	...	51 72 Tot. 123	28	9	6	8	35	37	Under 5 5 upwds.	...	1	...	1	1	2	...	...	2	...	...	...	...	...	...	...	...	...	...	6	1	...	15	8	...	
EASTHAMPSTEAD RURAL ...	12895	4	19	9	1	...	...	18	18	...	82 75 Tot. 157	27	20	9	2	47	52	Under 5 5 upwds.	...	...	1	...	6	3	...	...	1	...	...	...	...	...	...	...	...	...	1	6	...	...	16	9	4	
WINDSOR RURAL ...	20937	1	24	28	12	14	12	...	...	...	158 141 Tot. 299	66	23	16	9	89	96	Under 5 5 upwds.	...	2	2	4	...	3	...	...	9	...	...	...	...	...	...	...	...	...	...	20	...	...	24	16	9	
TOTAL ...	141957	89	146	172	65	19	15	72	70	...	1223 1092 2315	439	249	137	91	531	868	Under 5 5 upwds.	...	30	28	15	17	29	...	2	146	...	1	3	1	...	...	...	5	106	1	6	206	128	63			

\* Columns 32B and 32C.—"Wasting Diseases" (under 5 years) include:—Scrofula, Rickets, Tabes, Marasmus, Debility, Want of Breast Milk, Premature Birth and Malformations.  
"Convulsive Diseases" include:—Hydrocephalus, Infantile Meningitis, Convulsions, Laryngismus, and Teething.



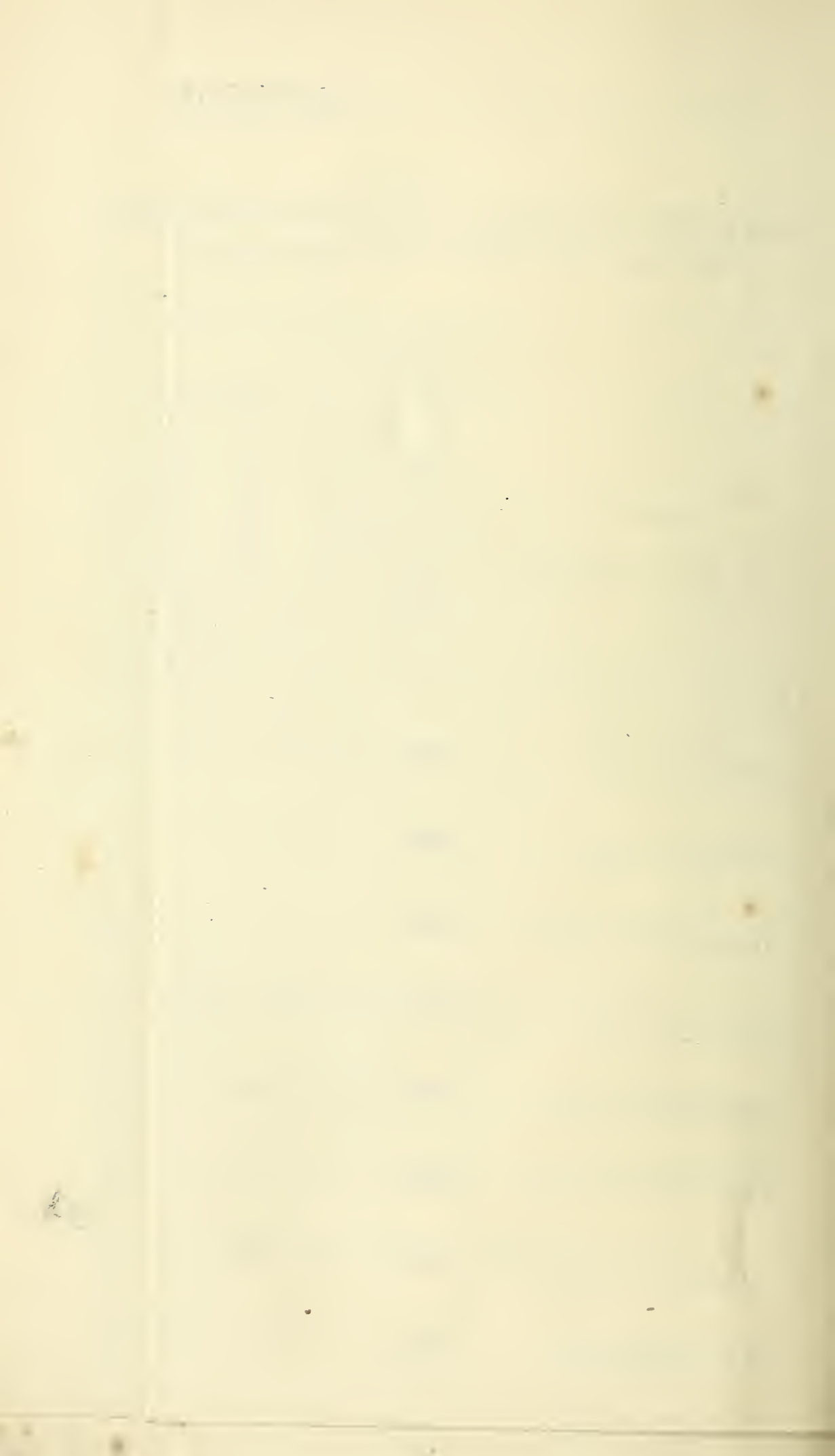
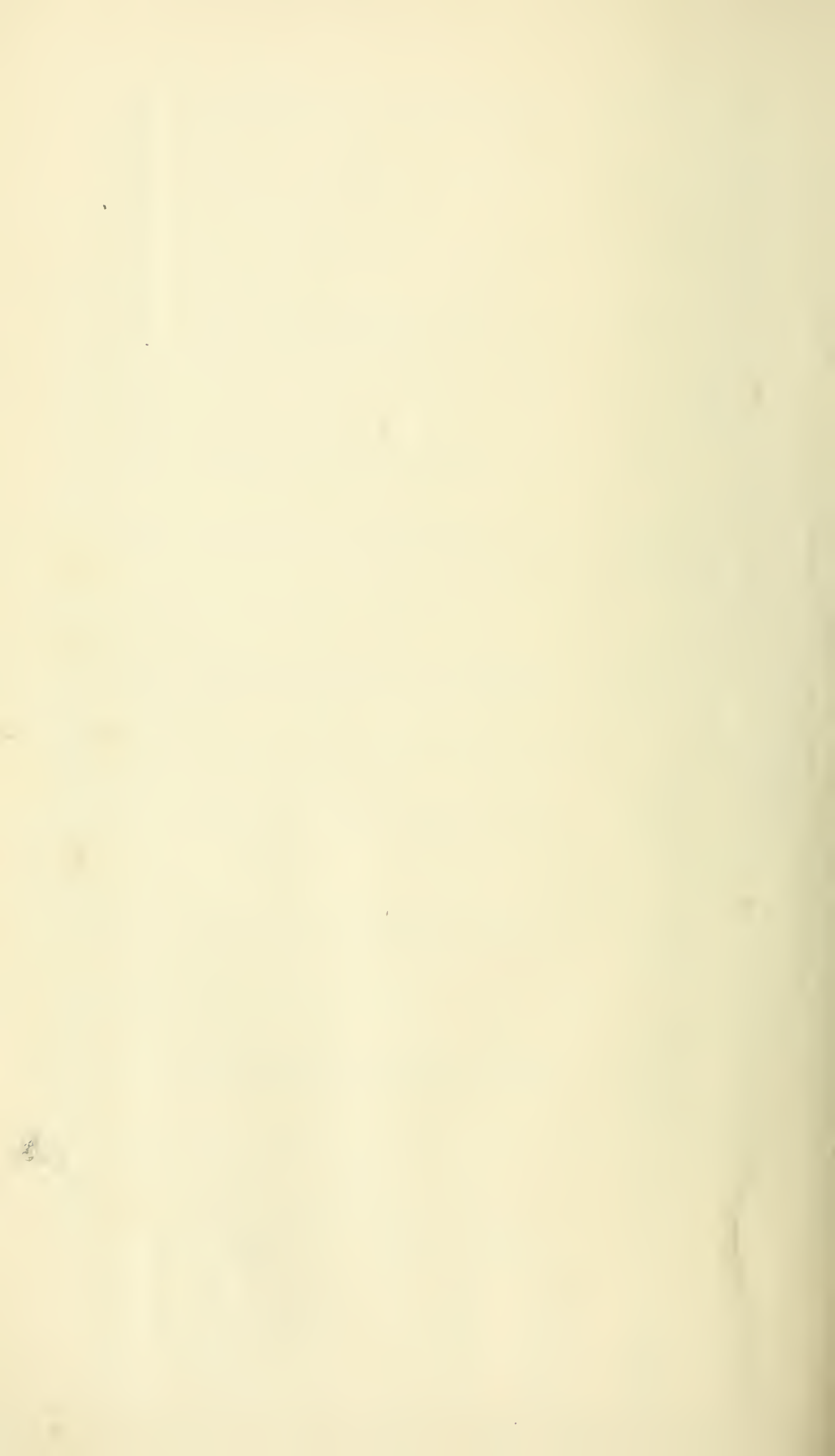


TABLE V.

SANITARY DISTRICTS.	Estimated "Corrected" Population.	Birth Rate per 1,000 living.	Corrected Death Rate per 1,000 living.	Percentage Rate of Corrected Deaths to Births.	Percentage Rate of Deaths under 1 year to Births.	Percentage of Total Corrected Mortality occurring at various Ages.						
						Under 1 year	1 to 5	TOTAL Under 15	5 to 15	15 to 25	25 to 60	Over 60
NEWBURY Rural ... .. " Urban ... ..	11,262 10,285	28.1 34.5	15.2 16.7	54.1 48.4	10.4 10.7	19.3 22.1	12.3 11.1	31.6 33.2	5.3 4.1	4.1 4.1	22.2 24.4	36.7 34.3
HUNGERFORD Rural ... .. ABINGDON Rural ... .. " Urban ... ..	17,291 13,533 5,698	31.0 30.4 30.2	19.0 18.1 20.5	61.2 59.5 68.0	10.4 12.4 9.3	17.0 20.8 13.7	7.3 13.9 19.7	24.3 34.7 33.4	6.4 8.2 9.4	4.7 4.1 4.3	17.7 18.4 22.2	47.1 34.7 30.8
WALLINGFORD Rural ... .. " Urban ... ..	11,280 2,624	30.0 33.5	18.1 21.7	60.2 64.8	10.6 13.6	17.7 21.1	10.8 12.1	28.5 33.2	8.3 1.7	3.9 3.5	19.6 22.9	39.7 38.6
BRADFELD Rural... .. COOKHAM Rural ... .. MAIDENHEAD Urban ... ..	18,547 8,803 8,802	32.6 30.5 32.6	15.2 18.1 13.2	46.6 59.1 42.9	9.1 7.8 9.7	19.5 13.2 22.8	9.6 12.5 7.3	29.1 25.7 30.1	4.0 5.7 4.9	2.8 5.7 6.5	22.7 21.4 28.5	41.4 41.5 30.1
EASTHAMPTON Rural ... .. WINDSOR Rural ... ..	12,895 20,937	30.2 30.5	12.2 14.3	40.4 46.8	6.9 10.3	17.2 22.0	12.8 7.7	20.0 29.7	5.7 5.3	1.2 3.0	29.9 29.8	33.2 32.1
MEAN RATES ... ..	.....	31.0	16.3	52.6	9.9	19.0	10.7	29.7	5.9	3.9	23.0	37.5

Deaths in Union Houses and in Public Lunatic Asylums are distributed in the respective Sanitary Districts according to previous residence. See Note TABLE I.





SANTARY DISTRICTS.		Corrected Death Rates per 1,000 living for				Percentage of Total Corrected Mortality caused by			
		*Chief Zymotic Diseases.	Phthisis.	Pulmonary Inflamma- tions.	Wasting & Convulsive Dis. under 5	*Chief Zymotic Diseases.	Phthisis.	Pulmonary Inflamma- tions.	Wasting & Convulsive Dis. under 5
NEWBURY Rural ..	...	1.3	1.1	2.6	2.7	8.8	7.6	16.9	18.1
" Urban ...	...	2.0	1.5	1.8	3.0	12.2	8.7	11.0	18.0
HUNGERFORD Rural ...	...	1.0	1.9	2.4	3.0	5.5	10.0	12.8	15.8
ABINGDON Rural ...	...	2.7	1.0	2.4	2.7	15.1	5.3	13.1	14.7
" Urban ...	...	5.3	3.0	1.7	1.6	25.6	14.5	8.5	7.9
WALLINGFORD Rural ...	...	1.7	.5	1.9	2.2	9.3	2.9	10.8	12.3
" Urban ...	...	1.5	2.5	3.2	2.2	7.0	14.0	17.5	12.3
BRADFIELD Rural ...	...	1.2	.7	2.2	2.3	8.2	4.9	14.5	15.2
COOKHAM Rural ...	...	2.8	1.0	2.3	1.4	15.7	5.7	12.6	7.5
MAIDENHEAD Urban ...	...	1.1	1.8	1.8	2.6	8.1	13.0	13.0	18.7
EASTHAMPTON Rural ...	...	1.1	1.0	1.2	1.9	8.9	8.3	9.5	15.9
WINDSOR Rural ...	...	1.7	1.4	2.5	1.9	12.0	9.7	17.4	13.4
MEAN RATE IN 1884	...	1.8	1.3	2.2	2.3	10.9	8.0	13.3	14.4
" " 1883	...	1.7	1.6	2.6	2.4	10.2	9.7	15.6	14.5
" " 1882	...	2.1	1.1	2.2	...	13.2	7.2	13.6	...
" " 1881	...	1.1	1.6	2.2	...	9.7	10.7	14.7	...
" " 1880	...	2.0	1.5	2.9	2.7	11.9	8.8	17.2	15.8
" " 1879	...	1.2	1.7	3.3	2.1	9.0	9.9	18.9	12.2
" " 1878	...	2.4	1.6	2.9	2.4	13.7	9.1	16.4	13.7
" " 1877	...	2.0	1.9	2.4	2.3	11.2	10.8	14.5	13.4
" " 1876	...	1.7	1.6	2.5	...	10.2	9.7	14.4	...
" " 1875	...	2.2	2.0	3.3	...	11.3	10.1	16.7	...
" " 1874	...	...	1.8	2.5	...	9.0	10.7	14.1	...

\* Including small pox, measles, scarlet fever, diphtheria (and croup), whooping cough, fever (typhus, typhoid and other continued), diarrhoea (and dysentery). (For list of Wasting and Convulsive Diseases, see foot-note Table IV.)

